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THE CAPE MONTHLY MAGAZINE.

OCTOBER, 1857.

CAPE TOWN:

WILLIAM BRITTAIN, 44, ST. GEORGE'S-STREET;

A. S. ROBERTSON, ADDERLEY-STREET; J. C. JUTA, WALE-STREET;

W. L. SAMMONS, PLEIN-STREET.

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Notice to Correspondents.—Contributors are respectfully requested to forward with their contributions, their names and address, in confidence, to the Editors.

Mr. Justice Watermeyer's Lectures on the "History of the Cape," and the "History of the Basutos," by the Special Commissioner of the *Cape Argus*, have been received. Review Notices of them will appear next month. The Literary Review has been omitted from the present issue for want of space.

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CAPE MONTHLY MAGAZINE.

HISTORICAL SKETCHES OF SOUTH AFRICA.

No. 1.

It may not be uninteresting to those who value statistical accounts of the progress of population in this settlement, to know the number of colonists with which it commenced, when only Cape Town and its immediate environs were first in occupation—when the first settlers were surrounded by the native tribes—when struggling against numerous difficulties to obtain supplies by their own exertions, by barter with the natives, or by the casual arrival of ships trading to and from the East Indies—when scarcity of provisions drove them to use the penguin for food, and their stores could only be supplied with rice for their sustenance from the distant island of Madagascar.

According to the resolutions of Council of 30th May, 1658, six years after the occupation of the colony by the Dutch, the population consisted of the following:—

Garrison, ...	80	men.
Sick, ...	15	„
European women and children, ...	20	
Slaves of the East India Company, including sick, ...	98	
Free inhabitants, ...	51	
Slaves of private individuals (male and female),	89	
Convicts, ...	7	
Total, ...	360	
Taking from that number, sick in garrison,...	15	
Slaves, ...	187	
Convicts, ...	7	
Women and children,...	20	
	229	
From the total, ...	360	
The whole available force, for the general defence (including the free men), amounted to	131	

Upon this little brave band rested the establishment of this settlement. Their task was one of difficulty and danger, and they required no small courage to undertake it. They had to defend the frontier of the day, then within the limits of Salt and Liesbeck Rivers (the latter bearing the name of Amstel). They were surrounded by the following tribes:—the Chainouquas, Caekouquas, Hameunquas, Gorcoquas, Kaapmans, Hottentoos, Namaquas, Gonnemas, Hattequas, Chenoquas, Sousequas, Ubequas, Bockemans, Watemans, Griququas (this tribe alone had fifty kraals), such as their names successively appear in the records of the colony. They had to supply labour for public and private works—for cultivation of land, to raise supplies of vegetables (little as these supplies might have been) for the refreshment of their seafaring visitors and themselves—to build forts and their own habitations,—to protect themselves, and be prepared for defence, against attacks of the aborigines, and their little flocks against the lion, tiger, wolf, and other ferocious animals, then inhabiting the country upon which they bordered. Besides this, they had to watch, with vigilance and circumspection, the slaves amongst them, brought from Angola and the coast of Guinea; for, as captives of barbarous tribes and the oppressed party, they could not be considered otherwise than as natural enemies, and consequently requiring constant watching and restraint, such as, from their frequent desertions, seem to have been absolutely necessary. Our ancestor settlers had, moreover, to help and succour a number of sick, as it appears that disease also raged among the slaves. They had, if defeated, no retreat but the ocean, and could obtain no assistance or relief, except from Holland and Batavia.

This was the exact position of that small body above numbered, and their intrepid commander, Jan van Riebeek. When the morning of the colony dawned, they planted the standard, and laid the foundation, for present and future generations, of this now progressing settlement.

From this little camp in Table valley, pitched rather more than two centuries ago, spread the European and mixed population now occupying an area of about 117,303,000 acres of land. The limits were successively removed, as pressure made it necessary or expedient, from Liesbeek River to where we find it now extended,—on the east coast reaching the mouth of the Buffalo, at East London, about 700 miles from Cape Town, on the west, the mouth of the Orange River (originally L'Gariep), about 420 miles away, with a boundary line across, from east to west, in length about 920 miles.

In addition to that territory of the Cape Colony, the de-

scendants of this same original stock are settled beyond the borders in the Orange Free State, the Trans-Vaal Republic, and at Natal,—the centre gradually approaching the tropic, and the great lake 'Ngami, until they have increased at present, I calculate to not less than 350,000 souls.

Fellow-colonists! if the retrospect of the past brings to recollection the sufferings, sacrifices, courage, and intrepidity of these our ancestors, should not a tribute of gratitude be paid to their memory by respecting their merit, and transmitting the remembrance of it to posterity? Can we withhold our admiration when feeling how strongly and unitedly they must have laboured to anchor the colonial craft in the primitive day of our existence? Without their doings, could the adopted motto of the *Good Hope* ever have been so effectually realised? Was it not from them that the first prayer ascended that Christianity should be taught and spread among the uncivilized tribes; and is not the first page of our colonial records consecrated by that sacred supplication? Can we see with indifference how that prayer has been heard, and the blessings of religion diffused wide and far; its rays reaching the recesses of the benighted interior, and conveying thither that light which we received from heaven? Can we be unobservant and indifferent when bearing in mind the blessings now enjoyed from this small beginning, in thousands of comfortable homesteads, and the plenty produced by our lands and flocks? Can we be ungrateful when, from the government of native chiefs, we see this our country transferred to the protection of a revered sovereign and a liberal Government, enjoying the advantages of an unimpeded and improving commerce, perfect freedom of religion and conscience,—a press, active and free in diffusing knowledge,—where education is obtained and liberally supported for the improvement of our offspring—where art and science are encouraged, and we live under a happy prospect of increasing welfare, with peace on our borders and competency in our homes?

A benevolent Father has fostered us from the beginning when the primitive founders were settled,—changes of our Governments have not unfavourably affected nor been detrimental to our progress, and success has crowned the perseverance and indomitable enterprise, left as an inheritance for our imitation and enjoyment. May eternal peace and contentment prove our estimation of the great blessings we have received, and gratitude fill the bosoms of all who feel an interest in this land of our nativity or adoption.

The following memoranda, illustrative of the statements made in the preceding sketch—the hardships, trials and sufferings endured by Van Riebeek and his band—are taken from the old commander's own journal :—

May 11, 1652.—Want of labour caused the retention of fifty sick men from two ships in Table Bay.

23.—Sickness suffered among the people from dysentery, fever and other, caused by the cold, and want of means of comfort and proper lodging.

June 1.—A constable died of fever, which increases also the dysentery, and causes much decrease in labour.

6.—Wind from S.W.; heavy rain, works stopped; bread and other dry articles could not be kept dry.

7.—Sickness increased, debility among the men; without the interference of Providence, a stop in the works expected.

8.—Several persons died of dysentery.

10.—Only fifty men, in tolerable good health, could join the works, the greater number suffering of the diseases above mentioned; up to that period, only one cow and calf could be obtained from the natives.

11.—Excesssive cold—increase of sick.

12.—Heavy thunderstorm. Young cabbage and other Dutch vegetables fairly promising, destroyed.

13.—The number of sick increased by eight or ten patients.

14.—Severe storm in Table Bay, ships in danger; the greater part of plantation destroyed—increase of the number of sick.

22.—Hurricane, vessels in danger; erected buildings threatened with destruction. Ships should not touch at this time of the year at Table Bay.

July 22.—The same weather; plantations destroyed.

August 12.—Many hartebeests and elands were seen at a distance just beyond cannon shot of the fort ; disappointment in not succeeding to approach them ; provisions reduced and getting old—severe on the hard-working men. Only one cow and calf had been obtained up to that period ; vegetables scarce ; hope that Providence may soon send relief.

16, 17, and 18.—Hail storms ; little progress in works at the fort.

29.—Wind from the north ; rain and hail ; country overflown ; new garden preserved by ditching.

September 13.—Amongst other sea-birds, penguins distributed for food as refreshment.

16.—The yacht *Good Hope* arrived from Robben Island with about 600 penguins.

25.—Desertion of four men.

26.—Murmurs among the men, complaining of hard labour and provisions ; some days only pearl barley in the morning and peas in the evening could be supplied ; some fixed days only fish or birds (penguins, I believe) could be added ; relief expected by fleets returning from India ; greater murmurs expected ; daily wages added to ordinary ; praying that God may grant speedy relief ; guards doubled ; suspicions of the people forming themselves in a conspiring party entertained.

30.—Attempt on the part of the men to dictate to the commander, about provisions, and resolute conduct on his part ; several cases of severe punishment noted ; a tent destroyed by severe south-easterly wind.

October 14, 15.—Works at the fort stopped by rain.

November 11.—Twenty-four men in hospital, complaining of severe pain in the limbs, attributed to hard labour ; bad provisions, scantily supplied, and only occasionally relieved by fish,—the only net much worn and torn ; hope to be relieved by obtaining cattle ; only three cows and four sheep until now had been bartered from the natives ; apprehensive that, unless Providence sends relief, the works must be stayed.

December 7.—Burglary and theft committed.

11.—Natives (Saldiniers) appear in large body, and encamped near the salt and fresh rivers; soldiers removed in consequence from the works, to watch day and night; attack apprehended; the whole strength

Soldiers	30
Sailors at the works	24
Carpenters and boys	7
Masons	9
Herdsmen	5
Cook and boys	4
Surgeon and boy	2
Constable	1
For the sick	1
Gaoler	1
Commander, catechist, assistant, butler, coopers, and 2 boys	8
Women and children	15
On the yacht	10
Total,	117

And there were some, receiving wages, sick, and many lazy (dagdieven) among them.

These notes, to the end of 1652, will suffice to show the struggles in the first days of the colony, and are closed in order to form an idea of the progress, in about 40 years, of the population and produce raised, by the following return for 1694 :—

Christians.

Males	446
Females	195
Sons	217
Daughters	214
Servants	87

Slaves.

Males	325
Females	64
Children	58
Total of population,	1606

Cattle and Animals.

Horses	302
Oxen	5328
Sheep	48925
Pigs	228
Total,	54,783

Grain.

Muids wheat sown, 748, ... win 7605½
„ Barley „ 15, ... „ 162
„ Rye „ 115¾, ... „ 1221¾
Vines, 739,600, calculated to have produced about 740 leaguers.

Wynberg. P. B. B.

NOTES ON PLANTING.

CONIFERÆ.—CONTINUED.

Pinus Teocote, or twisted-leaved pine, is a native of Mexico, on the Real del Monte. *P. Leiophylla, P. Montezuma, P. Ocarpa,* are Mexican also, but the growth of all is moderate

at the "Oaks," less than that of the common Pinaster; still a fair average growth. Nothing is known of their timber; and their immense size, when full grown, is as yet their principal recommendation.

Pinus Macrophylla, a remarkably large-leaved pine from Mexico, and *P. Filifolia*, the thread-leaved pine, native of Guatemala, are both trees of great size. These two grow much faster at the "Oaks" than the firstnamed Mexicans.

Before closing with the pines, I will refer to a few species which might be introduced advantageously into this colony, if they are not here already, and several of which would have had a trial at the "Oaks" but for accidents which befel them on the passage from Europe.

Pinus Mitis, the yellow deal of commerce, an American tree, of great size, found growing in the very poorest soils, from New England to Georgia, and would, no doubt, succeed well in many parts of this colony.

Pinus Laricio, native of Corsica, Spain, Greece, and Italy. This valuable tree reaches a height of 100 feet. It delights in sand or very light sandy soils, where it grows very fast. It is remarkable as having been overlooked by our botanists, till the overthrow of Napoleon the First, when a fine plant of it was found growing in the *Jardin des Plantes* at Paris. Since then, it has received the most marked attention, the wood having been found of excellent quality for a variety of purposes. It has been sometimes confounded with *Pinus Maritima*, although perfectly distinct. It is much used for ships' masts.

Pinus Austriaca, the black pine, is of somewhat humbler growth than the last species, viz., 60 to 80 feet. Its timber is good, and like the last, it delights in sand and the sea breeze. Both, therefore, seem well adapted for a trial on the late drifting sands.

Pinus Bruttia, native of Calabria. This tree attains the height of 100 feet, and its timber is of the first order. *P. Rigida*, the pitch pine, and *Pinus Tæda*, the frankincense pine, are both fine trees, natives of Virginia. Their average height is about 70 feet, and their timber is good.

Pinus Ponderosa derives its name from its timber, which is so heavy as to sink in water. Close in grain and of great durability, it has been considered by some writers as excelling in value all other pines. This tree, in suitable localities, makes rapid growth; and it was found, in great abundance, by Mr. Douglas, between the Rocky Mountains of North America and the Pacific Ocean. The average height is about 100 feet.

Pinus Benthamia. Mr. Hartweg measured trees of this species 200 feet in height, with a circumference of stem 28 feet. It is considered in England rather more tender in constitution than *P. Insignis*, and would probably flourish in the climate of South Africa.

Pinus Palustris, native of Carolina and Florida, attains the height of about 70 feet. It is the red pine of commerce. The wood is too well known to require description here. It requires to be planted near the sea, and in sand, or very sandy soil, and can be safely recommended for plantations along the coast.

Pinus Radiata, native of California, is found on the sea-shore, almost close to the water. It is very like *P. Insignis* in growth and appearance. The timber has been proved to be very tough, and at present is in high demand for ship-building.

Pinus Macrocarpa is another fine tree from California. Specimens have been measured 140 feet in height. It requires to be planted at a considerable elevation, and in light soil.

Pinus Lambertiana, discovered in the sandy plains of California, by the botanist Douglas, has been known to stand 215 feet in height, with a diameter of stem 19 feet. The resin, when roasted, is so sweet as to be employed instead of sugar. The natives pound the seeds into flour, and make their bread of it. It will doubtless prove hardy at the Cape.

Pinus Strobus, or Weymouth Pine, is of quick growth, in sheltered situations, but the timber is indifferent. It is extensively used in America, under the name of white pine. It grows to 150 feet.

Pinus Pallasiana. This remarkable tree is of but moderate height, as compared with some already mentioned, and seldom exceeds 60 or 70 feet. It is a native of the Crimea, and flourishes on the declivities of the mountains which stretch along the shores of the Black Sea. It abounds with a peculiar resin, which is singularly odorous, and the wood is very durable. Some experiments in Europe, with the tree, led to the discovery that it would grow with great luxuriance in soil so thin, poor, and arid, as no other tree would live in.

I now return to my notes on *Coniferæ* at the "Oaks."

The *Abies*, or spruce firs, are, few of them, I fear, suitable to this colony, unless planted at very high elevations. As a rule, they delight in very poor soils.

Abies Khutrow, *A. Morinda*, or *A. Smithiana*, for it bears all three names, could scarcely be kept alive at the "Oaks.'

In three years it did not progress three inches, but when removed to a higher site on the mountain side it commenced to grow vigorously, and promised, when last seen, to be a noble object. This tree is a native of Nepal, where it reaches the height of 80 feet. Its pyramidal form and drooping branches give it a most ornamental appearance.

Of the *Abies* tribe, there are two certainly worthy the attention of colonial landowners, whose estates afford a site between 800 and 1800 feet above the sea level; viz.: *Abies Excelsa*, the Norway spruce, which frequently attains to 120 feet in height, in Europe. I have seen it grow with equal rapidity in the very opposite extremes of rich and poor soil. Its timber is known almost all the world over. *Abies Douglasii*—found, like the *Pinus Ponderosa*, in the north-western regions of North America, between the Rocky Mountains and the Pacific Ocean, is supposed by some authorities to be the *Pinus Taxifolia* of Menzies. It is stated to be "a stupendous tree, growing from 150 to 200 feet in height. One specimen is said by a traveller upon the Columbia to have measured 230 feet in height, and 50 in circumference. Its timber is singularly close-grained and heavy, its bark surprisingly thick, its foliage very elegant." The same writer, by the way, reports of the *Pinus Ponderosa* above named, that "it grows as fast in the north of England as the Scotch fir, and that it ought everywhere to supersede that species, from the superior quality of its timber." The *Abies Douglasii* received its name from the enterprising traveller and botanical collector to the Horticultural Society of London, whose untimely and miserable fate was much deplored. Whilst exploring the forests of Owyhee, he unfortunately fell into one of the deep pits made by the natives to catch wild animals, and was gored to death by a wild bull, which had previously experienced the same mischance.

The next tribe is called *Picea*, or silver fir. It has the advantage over the spruce fir, in this, that it will grow at a much lower elevation.

Picea Pindrow, a native of Nepal, was tried at the "Oaks," but made but little progress. It is said to be a beautiful tree when at maturity.

Two trees of this tribe are well worth introducing, and I will confine my remarks to them; viz.: *Picea Religiosa* and *P. Grandis*. *Picea Religiosa*, the sacred Mexican silver fir, attains a height of 150 feet, and *P. Grandis*, 200 feet. Of their timber little has yet been ascertained, but if they possess half of the properties of the known silver firs, they must be valuable indeed.

Larix, the "*Larch*," *Larix Europea*, from the Alps of the south of Europe, is a tree, the value of which is too well known to require any description. It would not live at the "Oaks," but would probably succeed at a higher elevation.

Cedrus. Cedrus Deodara, or Deodar of the Himalaya mountains. This noble tree grows well at the "Oaks," in almost every description of soil, and is not only a strikingly ornamental object, but so valuable for its timber, so quick in growth, and apparently so hardy, that it deserves more than a casual notice. In its native mountains it reaches a height of 200 feet, and specimens have been measured nearly 40 feet in circumference at 5 feet from the ground. Captain Madden says,—"The timber of the cedar is held in the highest estimation, being considered almost imperishable, and peculiarly exempt from the attack of worms and insects. It has the advantage of requiring little or no seasoning, takes the saw kindly, but will not split into planks. In the walls of temples in Kunawar, beams were pointed out to me, showing no signs of decay, except being a little charred and blackened on the surface by the action of the sun and weather; and these temples were said to have been built from 600 to 800 years ago. This is probably an exaggeration, but Captain P. Gerard lived in a house at Summerkot, between Rooroo and Rampoor, the property of the Busehur Rajah, and ascertained to be 200 years old, in which the timber was as sound as the day it was cut. It is in great request for the walls and roofs of temples and houses, and for granaries, chests, and other purposes, where the ravages of insects are apprehended."

Moorcroft writes,—"The most valuable tree of Kashmere is, however, the Deodar, a variety of cedar, the timber of which is extensively employed in the construction of houses, temples, and bridges. Pieces of it from the Zein-al-Radal bridge were found little decayed, though exposed to the action of water for four hundred years." Mr. Vigne follows on the same side, and tells us, that in Kashmere "bridges boats, and musjids, are built of the imperishable Deodar."

Captain Madden proceeds to remark that "after its timber, the most valuable product of this tree is its turpentine. Small split pieces of the wood, prepared for the purpose with smothered heat, produce a useful oil, of the odour of the wood, but which has not been brought to the consistency of tar. Captain A. Gerard affirms that when rubbed on any other kind of timber, it renders the wood less liable to decay, and the ravages of vermin."

Some fine young trees of the Deodar may be seen in the

Botanical Garden of Cape Town. At the "Oaks," it was found to be quicker in growth than the common pines of the colony,—viz., *P. Pinaster*, *P. Halepensis*, and *P. Pinea;* and its wood, being so very much superior to all of them, renders its cultivation an object of much interest and importance, in connection with the railways and other public works, which have not only to be made, but to be kept in repair. Large quantities of Deodar seed are now annually imported into England; and it can be procured without any difficulty through the medium of the local authorities, or the public institutions of the colony; such as the committees of the Botanical Garden and the Agricultural Society.

Cedrus Libani, the well-known Cedar of Lebanon, ought to prove as hardy as *Pinus Halepensis;* but in Europe it is a tree of slow growth.

Auracaria. A. Braziliensis. These trees (from seed bought in the market of Rio Janeiro) flourish vigorously at the "Oaks," and form most conspicuous objects. In Brazil, it is a tree of 80 to 100 feet in height. The wood is easily wrought, full of dark veins, takes a high polish, strong, and durable. The seeds are nearly twice the size of the common almond, and are edible. In fact, they form no small item in the victualling department of the South American Indians.

Auracaria Imbricata has so great a resemblance to the last, although quite distinct, that the one is frequently mistaken for the other. It is also a taller tree, and grows at a higher elevation, viz., the Cordillera of Chili. Its common name is the "Chili Pine." Plants, I believe, were introduced to the Cape Botanical Garden, but of their present state I am not aware. Of its success *overberg*, there can be no doubt.

Auracaria Bidwellii, and *A. Cunninghamii*, the "Moreton Bay Pines," are both fine trees, and would thrive in the vicinity of the sea.

Auracaria Excelsa, the "Norfolk Island Pine," grows fast in most parts of the colony, where it has been tried. It is of considerable value, not only for its beauty, but for its timber (which is remarkably white and close-grained), and grows to an immense height in Norfolk Island and New Caledonia. A light sandy soil appears to suit it best.

Auracaria Cookii, named from Captain Cook, who first discovered it in the island of Aniteura, where, however, only one tree is said to exist at present, the entire forest having been cut down by sailors for masts, spars, &c. On the south-east coast of *New Caledonia*, large forests yet remain, and the old tree, described by Cook as "like a well-proportioned

tower," still stands, and in good health. A recent traveller describes its present appearance, seen from a distance, to be like a "great factory chimney!" This tree resembles very much the Norfolk Island Pine, but is far denser in foliage, and would form a fine addition to our rather limited number of useful trees.

Dammara, or Amboyna Pine. *Dammara Orientalis.* This fine tree is a native of the Eastern Archipelago. The resin frequently hangs from it in the shape of icicles, a foot in length, and as transparent and white as crystal. The average height of the tree is about 90 or 100 feet.

Dammara Australis. The Courie Pine of New Zealand. This tree frequently attains a height of 150 feet. The resin has a pale green tinge, and has become an article of export. Darwin speaks of some of these trees measuring between 30 and 40 feet in circumference, and 90 feet up to the first branches, the head being out of all proportion small to the trunk. From the now well-attested value of this tree, I think it ought to be extensively planted, even in preference to most of the *Conifereæ* already enumerated.

Cunninghamia Sinensis, the Chinese Fir, grows freely at the "Oaks," from seed originally obtained from a tree in the garden of the late Colonel Rogers, at Wynberg. It is extensively cultivated in Japan for its timber, which is said to be good. Its height, at maturity, is from 40 to 50 feet.

Sequoia—"Bastard Cedar." *Sequoia Sempervirens,* the giant among trees, grows abundantly at *Santa Cruz.* Sixty miles from Monterey, one tree has been named by the American settlers "the Giant," and measures 270 feet in height, and 55 in circumference, at 6 feet from the base. Mr. Hartweg gives the average height to be 200 feet, and from 18 to 24 feet average circumference. The wood is said to be light-red, fine and close-grained, but brittle; yet the boards do not warp, and are never attacked by insects. It has the character of growing rapidly in almost any soil or situation.

Podocarpus. The "Yellow Wood" of the colony. "*Podocarpus Totarra.*" This tree attains a height of 80 or 90 feet in New Zealand, where it is considered the best tree of the country. Dr. Lindley says that the possession of these trees has been the cause of wars amongst the natives.

Podocarpus Spicata, native of swamps in New Zealand, bears a considerable resemblance to our English yew, and grows to 200 feet in height. This is the tree from which Capt. Cook made spruce beer for his sailors.

Dacrydium Cupressinum, the Red Pine of New Zealand, described by Dr. Solander, in Cook's voyages, as growing on

the hill sides, and down to near the water's edge, is a most remarkable tree. Height from 80 to 100 feet, and girth only 4 to 10 feet. The timber is very close-grained, and much resembles Bermuda Cedar.

Dacrydium U. Franklinii, the Huon Pine of Van Diemen's Land. Mr. Backhouse, in his narrative of a visit to Australia, states this tree to exceed 100 feet in height, with a circumference of 25 feet. The wood, when burnt, gives out a pleasant aromatic odour. It is close-grained, and valuable for ship timber, being more durable than American white pine, and forms the principal export from Macquarrie Harbour, where logs are readily obtained 50 feet in length. 2867 logs were exported from the neighbourhood in one year. In the "Reports of the Juries" of the Great Exhibition in London, the "*Huon Pine*" is described in glowing terms as producing "a most remarkably, beautiful, light-coloured wood, singularly marked with dark spots, especially towards the lower part of the stem; admirable for ornamental furniture."

There can be no difficulty in procuring seed of the Huon Pine from Tasmania, and the tree cannot fail to succeed in Southern Africa.

Phyllocladus. P. Trichomanoides, the *Tamakan* of the New Zealanders. This fine tree grows to the height of 60 or 70 feet. The timber is so hard and heavy, as to sink in water, and the bark forms a valuable black dye. The leaves and young shoots have a remarkable purplish colour. It is rather tender in the climate of England, but would, no doubt, succeed at the Cape.

Phyllocladus Rhomboidalis, the "Celery-topped," or Adventure Bay Pine, where it grows close to the sea, and to the height of 40 to 60 feet.

"*Salisburia Adianti-folia,*" the "Ginkgo" tree of China, also called the "Maiden Hair" Tree, from the similarity of its leaves to those of the Maiden Hair Fern, is found from 70 to to 90 feet in height in its native country. The timber is rather soft. This tree made but slow progress at the "Oaks," the soil not suiting it. It requires to be planted in a dry sand.

Many more could be added to the list of *Coniferæ,* which might be tried with advantage in this colony. Those I have touched upon are chiefly such as have already been introduced, whether successfully or not, or such as give the best promise of success, and at the same time are procurable without much difficulty. The demand for timber (especially within easy distance of Cape Town) is certain to increase rapidly; and as the most valuable pines of other countries are known to be

perfectly adapted to the same soil and localities as the already existing pine forests in Table valley, and surpass immeasurably the common *Coniferæ* of the colony in value of timber, in rapidity of growth, and in ornamental appearance, surely they are worth trying.

I cannot close these notes without adverting to the pernicious practice, so common at the Cape, of pruning fir trees, under the absurd idea of hastening their growth, whereas their growth is materially retarded by the quantity of resinous sap which exudes from the wounds thus barbarously inflicted.

R. S.

A PLAGUE OF RATS.

I HOPED that before this periodical should again have completed its term for another issue, that we should have received some information, and, at least, a dozen specimens of the mouse which I alluded to in the last number as having appeared in such multitudes in the Caledon district. Such, I am sorry to say, is not the case. Perhaps the gentleman with the thirty-four cats is too deeply engaged, aiding his feline allies in the desperate fight, to write or send; and as for him with the sixteen, I suppose he and his little band are, long ere this, like the Bishop of Mentz, conquered and devoured.

Failing, then, information from near home, the readers of this Magazine may put up with an account of a plague of a more formidable species of the genus *Mus*, which, in the year 1843, ravaged the fenny districts of Cambridgeshire, between Ely and the little village of Isleham.

From some unknown cause, vast numbers of these destructive animals suddenly appeared in the fields in that neighbourhood. The turf-land, which, some of my readers may not know, consists of uncultivated bog, saturated with water, and quaking at every footfall, swarmed equally with the ploughed fields. The farmers were in consternation; the corn was leveled to the ground, as if a reaping machine had passed over the fields, the brutes gnawing through the stalk a little above the root, in order that they might feast on the ear when it fell. Weak or sickly animals fell a prey to their rapacity; and, one moonlight night, the doctor of the village, on his way to visit a patient in the fen, was obliged to turn back and give up his intention, his horse refusing to face the menacing army that opposed his progress down the

raised bank, which separated the river from the fen-land, and along which ran the towing path of the former.

Dr. J—— described the sight as exceeding all belief. As far as he could see, the whole ground was alive with rats going to and from the river. In vain—the pressing nature of the case mastering his own fears—did he urge his steed to tread on the moving masses that covered the path; the animal, affrighted and terror-struck, snorted, plunged, and finally turned tail and bolted, bearing our *medico* back to the village. Had he lost his seat, his whitened bones would alone have revealed his fate. Where was this plague to end?

The morning of the 16th of August rose clear and calm, just such a day as our English autumn *can* give,—such a day as makes a grouse-shooter's veins tingle,—but many, when the night fell, recollected with awe, its before unnoticed awful stillness. The husbandman whistled as he went to his daily task; the farmer on the high grounds smiled on his ripening crops, and perhaps pitied his rat-ridden neighbour, perhaps gloried over him; who can tell? His own heart gave back a true echo that night: with it we will leave the sentence. The little birds hopped merrily from bough to bough, and nature rejoiced in another day; another night had not yet come.

About noon, the world seemed hushed and awe-stricken; men looked at each other, and said they had never known heat like that; the cattle lowed mournfully, and uneasily paced their narrow bounds; the sheep left off feeding, and huddled together; the songsters of the groves were mute now, and cowered beneath the leaves, which hung motionless from branch and spray. At intervals, a low moaning sound was heard; and then, as the day grew on, faint whisperings of air moved the leaves, and died away again; men's eyes were turned with wonder and fear to the west, for there on the horizon, but steadily rising, lay a dark leaden-hued mass of cloud, with bright copper-coloured edges. The superstitious country folk—for in truth, though within thirty miles of that renowned seat of learning, Cambridge, the inhabitants of that village might have ranked with Kafirs for ignorance—thought that the world was coming to an end. In vain their venerable, white-headed pastor left his sick-room, and, leaning on his daughter's arm, endeavoured to calm their fears, by assuring them that nothing more serious than a fearful storm impended. In vain, he urged them to bring in their cattle from the field to the shelter of the stall. Many would not be persuaded that their last hour was not at hand, and they dressed in their best clothes accordingly.

The wind now swept across the open fields in heavy gusts, and vivid flashes of lightning, accompanied by heavy and continuous peals of thunder, played on the rapidly darkening sky. The animals tore wildly about the fields or sought refuge among the few hedges that skirted the village; the birds cowered down in the hedgerows; by and bye, large drops of rain fell heavily on the dusty road; and about three o'clock, the storm burst on the village in all its fury.

The roar of the elements, mingled with the unceasing thunder, rendered conversation a matter of impossibility; large masses of ice fell in the place of hailstones; and the crashing of trees and glass added to the confusion. Thousands of pounds worth of property was destroyed in Cambridge and its vicinity (in the town alone it was estimated at £20,000); but as night closed in, the fury of the storm abated, and the descending torrent ceased, though the thirsty earth, filled through her myriad mouths, still poured the waters down the furrows of her time-worn face.

Again the morning rose sparkling and clear,—

> "The morn is up again, the dewy morn,
> With breath all incense, on its cheek all bloom,
> Laughing the clouds away with playful scorn,
> And living as if earth contained no tomb."

But how changed the scene of yester-morn! The smiling cornfields now lay devastated, their golden treasures beaten into the earth; here and there, a dead sheep or cow bespoke the carelessness or fear of its owner, while branches, rent from the sturdy ash, or gnarled oak, bore witness to the fury of the tempest.

The pastor and his daughter again sallied out to encourage, by precept, and assist by advice, the terror-stricken members of his flock. One of his earliest duties was, as a magistrate, to order the interment of the decaying bodies of *hundreds of rats*, wherever a post, or an angle of a wall, or other obstruction, had opposed the torrent that swept through the village, there, mingled with hailstones several inches in circumference, lay the dead corpses of their former pests, by twenties, fifties, and hundreds; they were quite destroyed; the land was rid of them.

Mice have, at times, appeared in great numbers in England and other parts of Europe, and done incredible damage. I cannot, at this moment, lay my hand upon the account; but I have read of many hundred acres of fir and beech plantation having been utterly destroyed by the little animals gnawing the lower portions of the bark away; and Sir Woodbine Parish, in his account of Buenos Ayres, states that, in the

drought that prevailed during the year 1830, and two following years, field-mice increased to an alarming extent, and entirely devoured the maize harvest.

I do hope that some one in the Dry Ruggens, or on the River Zonder End, will send a few of these mice to the Museum. Need I remind them, that, by the kindness of the Governor, a small box—an old cigar-box for instance—may be sent by the mail-cart free of expense. A large pill-box, even, would be enough for one specimen.

E. L. Layard.

THE WRECK OF THE "BLENDENHALL," AT TRISTAN D'ACUNHA.

[The following pages are printed from the MS. diary kept by one of the passengers in the ship *Blendenhall*, which was wrecked on Inaccessible Island, one of the Tristan D'Acunha group, on the 23d July, 1821. The diary was left behind by its author, at a boarding-house in Cape Town, and, after various little adventures of its own, was bought at a public auction by its present possessor, who has kindly allowed us the use of it. We print it without alteration or addition of any kind.—Eds. C. M. M.]

We left Gravesend, in the ship *Blendenhall*, Capt. Alexander Greig, for Bombay, on the 6th of May, 1821; the same evening brought up in Margate Roads. Got under sail next morning, and arrived in the Downs, to take the remainder of the passengers on board. On Thursday, the 9th, left the Downs, and arrived at Dungenness. Here we lay, wind-bound, till the 18th, when the wind favouring us, we finally set sail, having on board the following ladies and gentlemen as passengers:—

Mrs. Capt. Keys and two children, Lieut. and Mrs. Pepper, B.M., Quartermaster and Mrs. Gomsby and child, Miss Harris, Messrs. Law and Patch, assistant surgeons, Messrs. McTavish, Liddel, Lenon, Gibburn (cadet), Newman, B. M., Furlong, four mariners, and myself.

We proceeded down channel in company with several vessels, wind north. On Sunday, the 20th, at 11, p.m., lost sight of the Lizard Lights. On the 23rd, experienced a severe gale in the Bay of Biscay. Nothing of consequence occurred during the gale. On the 24th made the island of Madeira; on the 3rd of June, the peak of Teneriffe; and on the 4th, the island of Palma, having mostly favourable weather for several days. We fell in with the Honourable East India Company's ship *Thos. Grenville*, and, shortly after, the *Marquis of Wellington*, both for Calcutta;

and, in running down the north-east trades, met the private ship *Seaphon* for Madras; communicated and parted company.

On the 29th June, crossed the equator, weather very sultry; but on approaching the latitude of the Cape of Good Hope, the change was sensibly felt.

Nothing particular happened till the 23d July. Being anxious to ascertain the correctness of our chronometer, we were running a direct course, as we supposed from our reckoning, for the island of Tristan D'Acunha. Orders had been given, the evening previous, to keep a good look out for seaweed and land, the former being very common on a near approach to these islands. The wind being very light from the northward and eastward, accompanied by a thick fog, which precluded the possibility of discerning any object beyond a hundred yards. Keeping well to the southward, in hopes of falling in with stronger westerly wind, about 10, a.m.,—the greater part of the passengers and crew being on deck,—one of the seamen, on the forecastle, descried seaweed ahead; the helm was immediately put a-starboard, and in a few minutes, the cry of breakers and land, close to, was heard. The alarm now became general; the jolly-boat was lowered, and a rope was made fast from the bow of the ship, to tow her head round, the wind being so light as to render the rudder quite useless, not leaving us time to get our cutter out ere the ship struck. The jolly-boat cut her tow-rope, and stood out for sea. We then endeavoured to get our cutter out, and at length succeeded. Being manned with four seamen and a passenger, she shoved off; but the breakers being very high, she was unable to regain the ship, and, consequently, joined the jolly-boat. To save their lives now became the chief object, to effect which, the men from the jolly boat were taken into the cutter, and they made the best of their way on shore, through a tremendous surf. The fog had now cleared away, and we found ourselves within a quarter of a mile of a rocky beach Being now without our two boats, our dependence centered in the launch, which still remained on board. It was a matter of great difficulty how to get her over the side, since the departure of the two boats' crews considerably lessened the number of our best working hands. Everything wore a very alarming appearance.

At this critical juncture, Mr. Symers, the second officer's, unremitted exertions cannot be too highly spoken of; and, I believe, every individual will join me in saying that great praise is due to him for his activity, at this awful moment, in going aloft, reeving tackles, &c., &c., for the purpose of getting out the long-boat,—the breakers being so high as nearly to prevent his getting up the rigging,—and likewise, for his hazardous undertaking in trying to swim on shore, with a line, in hopes of thus being able to save the lives of his fellow-sufferers. In this endeavour, he was nobly followed by two of the crew; but they all failed in the attempt, the drawback of the sea being too strong for them to gain the shore.

The sea beginning to make a breach over us, at very short intervals, and the hull being water-logged, compelled us to desist, for the present, from any attempts to get out the long-boat; and for our better security, we cut away the lower mast, which fell with a tremendous crash along the starboard side. This tended greatly to ease the ship and keep her from rolling. While thus employed, we observed several men along the beach, making signs which we could not understand; and we hoped that Providence had not cast us on an uninhabited shore; but to our grief and disappointment, we discovered them to be the men that had subsequently succeeded in making good their landing in the cutter.

Our endeavours were a second time turned towards getting out the long-boat, in which we succeeded; but our exertions were frustrated by the mainmast, which laid alongside, dashing against her bottom, and thus rendering her completely useless. All around us was now a scene of approaching dissolution, while every moment our shattered ship became weaker from the shocks of the surrounding breakers, and we had nothing to hope for but the hand of Providence to render us that assistance which, at this time, we so much needed, and this heart-rending scene required. Every one was taking a final leave of each other; husbands of their wives, and poor mothers of their offspring. At this time we were within half a cable's length (180 yards) of the shore. The greater part of the passengers and crew that could swim effected their landing, with the exception of Matthew Horr (mariner), a lad about 17 years of age, whose uniform good conduct had secured to him the esteem of the captain, officers, and passengers, and his loss was universally regretted. About this time, the ship began to break up, and soon parted amidships, the sternmost part floating seaward; those still remaining on board crowded to the fore part of the wreck. While thus running forward, a tremendous heavy surf washed Capt. Greig overboard, but by his presence of mind and exertions, he was miraculously rescued from a watery grave, his son witnessing the awful scene.

Despairing of any other means of extricating ourselves from our present deplorable state, a raft was constructed from the loose planks that were floating about, and shoved off with the second officer, his brother, one passenger, and five seamen, taking with them a rope, by which means some hopes were entertained of saving the lives of the ladies and children; but, unfortunately, the rope broke and the raft was drifting out to sea, when a large breaker washed those on it off, and lifted the raft completely over an immense rock between it and the shore; and, by great exertions, the people regained the raft, and were safely thrown on shore, with the exception of a seaman named John Bantiff, who sunk to rise no more. It was truly melancholy to see these poor fellows struggling with the waves, in faint hope of reaching the land, expecting death every moment.

The hand of Providence was never more apparent than in the

preservation of the few passengers and crew that still remained on the wreck. Scarcely had the raft reached the land ere that part of the forecastle on which they were clinging drifted closer in shore. While the starboard part drove to sea and sunk, the larboard side, by the force of the surf, was thrown so near the shore as to enable those on the beach to convey a rope to this small remaining piece of the wreck, and by which means all were safely landed about 4, p.m., being six hours from the time the ship first struck.

Hope revived and gladness dawned within us. We mutually congratulated each other on our miraculous escape. Fifty souls—men, women, and children—were thus preserved from a watery grave, though landed in a most miserable condition, with scarcely wherewithal to cover their nakedness, on a desolate and barren island, only known as a mark in the middle of the ocean, to be shunned by navigators. Wet and fatigued, as we were, we spent a miserable night, with nothing for a covering but the canopy of heaven; and to increase our wretchedness, the rain fell in very heavy showers,—and few closed their eyes during the night.

Having thus providentially escaped from the dangers of the deep, and being fearful of having to encounter others no less formidable, we rose with the dawn, on the 24th, and found that we were wrecked on the north-west side of the island called Inaccessible. We travelled along the beach in search of provisions, clothes, and other articles tending to our comfort; none of us having tasted anything since breakfast the previous day. We had not proceeded far before we found some bales of cloth, and a great many pieces of muslin, which was indeed an unexpected treasure; and each took a sufficient quantity to make wearing apparel and tents, wrapping ourselves round with some to keep out the intense cold we were suffering. Proceeding further on our journey, we picked up a few cheeses, bottles of pickles, and hams, with which many of us sat down and made—not a very comfortable —but a hearty meal. After which, we continued our journey, and found a puncheon of gin, another of brandy, and a pipe of Madeira wine,—the two latter, however, were stove and mixed with salt water. The gin, which was perfectly good, we rolled up to the foot of the hill, and then knocked in the head of the cask, every one taking and drinking whatever quantity he pleased. Fortune seemed still to favour us, for we likewise picked up several cases of different kinds of wine, such as claret and port; two cases of cider, fifty-two cases of beef, pork, hams, and pickles, but no bread or biscuit.

Having pitched upon a spot (the best we could find, although up to our ankles in mud) for erecting tents, all hands removed from the place where we first landed, and before dark provided a temporary tent for the night, into which we all crowded, lying as close as we well could. Even this, uncomfortable as it may appear, was a feather bed to what we had the night before. We suffered greatly from the cold and rain, which obliged us to have frequent

recourse to liquor, being unprovided with implements for kindling a fire, and the wood being too damp to procure one by friction.

The dead body of John Bantiff having floated on shore, his remains were decently interred.

Wednesday, the 25th, was employed in erecting more comfortable tents, and before night a general one was built, about twenty-two feet long and ten broad, but it barely kept out the rain, which fell in very heavy showers, accompanied by vivid lightning and thunder. About twenty-eight or thirty of our number slept in the tent, but were nearly suffocated by morning from the heat and closeness.

On the 26th, we succeeded in kindling a fire, having fortunately found a flint and a knife,—making tinder from scraping the muslin. This was a truly cheerful sight, as well as a comfortable one for us, who had never been once dry since Monday morning, nor tasted a mouthful of dressed victuals. Penguins, seals, and sea-elephants were killed and thrown into the fire without being cleaned, and when broiled (or rather burnt) every one ate with a most voracious appetite. This island, most fortunately for us, abounds in wild celery, penguins, seals, and sea-elephants. The iron buoy drifted on shore, and on being divided in two was converted into boilers, and every individual took turns to cook. Soup, penguins, sea-elephant's heart, liver, and tongue, and celery being the chief ingredients; and as a substitute for salt, sea water was used.

Some of the crew, who had travelled so far as the western point, discovered marks of fire, supposed to have been made by some whalers while sealing here; which supposition we subsequently found to be correct.

Friday, the 27th of July, the captain called all hands together, and divided them into three parties for foraging—one to provide provisions, another wood and water, and the third to explore the island. The last mentioned party succeeded in gaining the summit of the hill (about three thousand feet high), from which they distinctly saw the neighbouring islands of Tristan d'Acunha and Nightingale; but their attempt to descend to the opposite side proved fruitless, and they were obliged to return without affording any particular information. Mr. Symers, the surgeon, was one of the party.

On Saturday, the 28th, Messrs. Thomas Symers (second officer), McTavish, and Law, the carpenter and a seaman, commenced ascending the hill; but the ascent being so difficult, all but the two first mentioned gentlemen returned. Messrs. Symers and McTavish succeeded in ascending the hill, and after a very arduous task got down by the opposite side; but discovered nothing of consequence. This day we picked up several cases of surgical instruments.

Sunday, 29th, thick hazy weather, with rain; each having brought two loads of wood for the general cooking fire,—performed divine

service, and returned thanks to Almighty God for our deliverance, and for His merciful providence in preserving us amidst so many dangers.

Monday, 30th, we found our cutter above high-water mark, and to our great joy discovered that she had sustained very little injury. This circumstance we all hailed as a happy omen of a speedy release from our wretched situation, feeling sanguine of seeing a ship, and thus being enabled to communicate to her our deplorable condition, or of going to Tristan d'Acunha, should our means of subsistence fail on this island; the carpenter was therefore set to work to repair her. The dead body of our cow having washed on shore, the skin was taken off and answered the purpose of wood for the repairs of the boat, and the meat for that of a meal, which tasted to our now depraved palates very good, though a week had elapsed since the death of the animal. Out of our live-stock which we had on board, one sheep and three pigs, succeeded in swiming on shore; these we took great care of, feeding them regularly, as the sow was likely to afford us a plentiful litter of pigs. We were all anxiously looking out for a vessel, being now possessed of the means of getting off to her.

On 31st, employed in picking up oars for the boat, carrying tar for paying her and other necessary articles towards rigging and completing her for sea.

August 1st, the carpenter pronounced the boat ready for sea; the weather hazy accompanied with rain. It would be uninteresting to relate the daily occurrences and occupations: suffice it to say that our labours were directed towards picking up anything we could find along the beach that in any way contributed towards making this our forlorn residence more agreeable I shall therefore content myself by relating particulars that may be deemed extraordinary or interesting. Our most laborious employment was that of providing ourselves with provisions, for which purpose we generally equipped ourselves with large clubs and doctor's scalpels, and sallied forth in search of seals, sea-elephants, &c., and often had to travel two or three miles over large sharp rocks and stones without shoes, before we could find one to kill, returning sometimes sadly disappointed in not having an elephant chop for dinner, when we were necessitated to make a meal of that worst of all meat, penguin. This beautiful bird is about eighteen inches in height, the bill about one and a half inches long, the upper part a little curved at the end and the lower obtuse; the head, neck, back, and sides are black; over each eye there is a stripe of pale yellow feathers, which lengthens into a crest, about two inches long, which can be erected at pleasure. The wings are black on the outside, but the edges and inside are white; the legs are of a fleshy colour. From the extreme shortness of their wings (somewhat resembling fins), they are unable to fly; but this deficiency is made up by their great swiftness in swimming, and they are fortified against the effects of a long continuance in the cold water by an

abundance of fat. They cackle like ducks, and were nicknamed by the sailors "jumping jacks," from their action of leaping out of the water, sometimes to the height of two or three feet. When once on shore they are very helpless, and keep tumbling among the rocks on being pursued. They bite severely when irritated. Their nests are holes in the earth, which they easily form by their bills, throwing back the dust with their feet; they lay several eggs, and this being their brooding season we anticipated a plentiful supply, hoping that they might recruit our health, since our present coarse food was daily diminishing our strength; and in this, our most sanguine expectations were realized. In a few days every one commenced egg-hunting, rising always at daylight, and returning before breakfast with a supply of from ten to twelve dozen each. While thus employed, we were obliged to use long sticks, and throw the penguins off their nests to get at the eggs, which are about the size of those of a goose, and from the quantity many of us were in the habit of eating, I should suppose very healthy. I am sure that many of the crew and passengers, myself among the latter, have eaten three dozen each during the day, fried, boiled, and made into milk.

The sea-elephants were from seven to twelve—and some even sixteen—feet long, and from four to eight feet in circumference; their skin is very thick, with short bristly hair, and of a dirty brown and grey colour; the tail and fore fins, serving them as feet when on land, are of a dark brown, without hair, and at the end of these are five claws, much like fingers, with nails and palms; these fins we found good eating. Their eyes are uncommonly large, black, and clear; ears short, broad, thick, and long. The full-grown ones have four large tusks, two in the uppper and two in the lower jaw; the teeth inserted in the jawbone are not so large as those of a horse, and are hollow. The tongue is very large, and was found to be better eating than any other part of the animal. The males have a sort of proboscis, hanging much below the under jaw, which distinguishes them from the female, the latter being generally smaller. The fat is about two inches thick, and a large one will yield from forty to fifty gallons of oil. It is supposed that they feed upon seaweed on shore, and small fish at sea.

Seals differ very little in form from the sea-elephants, except in size, hair, and colour, and are from four to six feet long, having a smooth head, resembling that of a bulldog, without external ears; the fore legs are deeply joined in the skin of the body, and the hind legs are placed in such a manner as to point backwards, which enables them to leap a considerable distance when observed or pursued. While on shore, they lie among the rocks, basking and sleeping in the sun, and often make a noise similar to the howling of dogs; the fat is about an inch thick, and produces very good oil.

It has already been noticed how we provided ourselves with boilers for making soup. Having so far advanced in luxury, we

became desirous of having fried as well as boiled meat. For this purpose, we picked up pieces of tin, and took the copper off the ship's bottom, and converted them into frying-pans; and after a short initiation in the culinary art, we became expert cooks, our usual repast being—mince, chops, boiled and fried roots, with salt water and oil mixed while frying. The meat was our sauce, and wild celery roots our dessert. To procure the lastmentioned article, we were obliged, at times, to climb halfway up the hill and bring it down in bags. Latterly, it became very scarce, and when a spot was found where it was plentiful, the greatest secrecy was observed by the discoverer, lest it should be plundered, or his garden be infested with poachers.

Thus we passed away our time in sea-elephant and seal hunting; getting eggs, and other eatables. Some periodicals and newspapers having floated on shore, were carefully picked up; and when otherwise unemployed, their perusal helped us, for a time, to forget our present distress. The elephants we killed with large clubs, going up to them while asleep, and knocking them on the nose and stunning them, when we immediately commenced dissecting, taking out the heart, liver, tongue, and kidneys of the old ones; but the cubs, after being well cleaned, were brought home, being tender and preferable to penguins.

It is consolatory and pleasing to reflect that, in the midst of all our troubles and distresses, we never lost sight of that merciful Being who had placed us in this situation. Our prayers and supplications were regularly offered up every Sunday, and our meetings for Divine worship were attended by all the passengers, and many of the crew.

On the 15th of August, we experienced a severe gale, during the night, from the south-west, with a tremendous swell from the same quarter; and early in the morning, on going down to the beach, found that the surf had come up so high as to dash our cutter to pieces, thus frustrating the hope of communicating with any ship that might appear in the offing. This misfortune was sadly lamented, and sorrow was depicted on the countenances of many. Several casks of beer were likewise washed off during the night; and we found our stock of liquor much decreased, the men having secured all the empty bottles they could get, which they filled and secreted among the bushes, thus providing themselves with every kind of drinkable.

On the 16th, the weather proved more moderate, though very cold. This day we cooked a pudding, by way of a change, made of sea-elephant's liver, heart, and kidneys, and boiled roots, cut into small pieces. The whole being mixed and boiled, was pronounced excellent.

On the 20th of August, a letter was written with penguin's blood, put into a bottle and placed at the foot of a flagstaff, erected on the north-west point of the island, on which a white flag was

hoisted, in the hope of its attracting the attention of any passing vessel. The contents were as follows:—

On the north-west side of this island are a part of the crew of the ship *Blendenhall*, who were wrecked on the 23rd of July, 1821. Should this fall into the hands of humane persons, we hope, by the assistance of God, they will do their best endeavours to render every assistance towards alleviating our present sufferings; and the prayers of many unfortunate sufferers will always be offered up for them.

(Signed) Alexander Greig, Commander.

On the 21st of August, at dusk, we observed a great many birds, with web feet, not unlike penguins, but smaller. Finding that the warmth of the fire attracted them, we made a large one for the purpose of catching them; placing ourselves round it, with long sticks, we killed a great number, and found them good eating. Finding that fleas were very numerous in our present abode,—so much so as to confine several of us to our beds from the severity of their sting,—we commenced shifting our tents to different quarters. In this general move, several preferred living separately, building tents on the best spots they could find. Some boxes of perfumery were washed on shore; and it was laughable to see the sailors actually washing themselves with lavender and honey water, rubbing their faces, hands, and feet with milk of roses, and indeed perfuming themselves all over, accompanying the operation with many jocular remarks and practical jokes.

Many letters were picked up, from which it was supposed that the bag containing the mail had floated on shore, among which I found several addressed to my friends in India. I preserved them in the hope of some day or other being able to deliver them personally; while others were opened by some of the crew, without ceremony, and read aloud for the amusement of the bystanders. During the reading of one of these epistles, from a young lady in England to her friend in India, giving a detailed account of a ball she had been at, I heard one of them exclaim, "My eye, Jack, they must have had rare fun at that there hop." Discipline being at an end, it was useless to remonstrate against such impropriety.

I shall here take the opportunity of mentioning that I succeeded in saving my chronometer, and some recommendatory letters, which I effected by keeping them in my hat and fastening it with a handkerchief.

On the 24th of August, all hands were employed laying in a stock of eggs, against the day of need, and stowing them away in casks. About this time, several of the crew, anticipating a failure of our supplies, thought proper to separate themselves from the captain and passengers, giving the former to understand that they had no objection to do their utmost in providing provisions for himself and son, but declined assisting the passengers. The avowal of this dislike to the passengers, I suspect, originated in their having resisted the barbarous ceremony of shaving, when crossing

the equator. The offer of £3 per month was made to induce some of the crew to engage themselves as servants, but none could be persuaded to accept it.

The change of living, from penguins and seals to that of eggs, was very perceptible, as every one felt much better and stronger. James Harris seaman, now commenced building a canoe, the ribs of which he very ingeniously formed out of wooden hoops of casks, over which elephant's skins, well tarred, were lashed. This laudable example was followed, on the 4th September, by James Nibbs and two others of the crew, in building a punt from the planks of the wreck. The sequel will be related hereafter. A party went up the hill and caught a few birds of a different description from any we had before seen. They were web-footed, black, with a white ring round their neck and head; their nests were underground, and generally with a pool of water before them.

Employed as usual, killing elephants, &c. One of the men met with a severe accident, having his arm bitten almost to the bone. Cold, stormy, and rainy weather prevailed during this month; and September also commenced with cold, hazy weather, accompanied by hail and rain, which made us very uncomfortable from the difficulty we experienced in procuring food, which we now found was daily decreasing. But, thank God, His good providence never deserted us, as, on the 11th September, another species of birds, of the petrel tribe, made their appearance on the island, being about eighteen inches long; the bill about one inch and a half in length, black, and hooked at the end; the body of a sooty brown above, and white beneath; the wings, when closed, exceed the tail; the feet are webbed; the legs black, long, and slender. They went out to sea during the day, but as night approached, they returned in vast flocks; and, although mute by daylight, are very clamorous in the night. They burrow in the ground, and the whole island was as full of holes as a rabbit-warren. We caught them about dusk in great numbers, their wings being so long as to prevent their flying till they run and raise themselves a little from the ground They proved to be the best food we had eaten, their flesh being whiter and less fishy than that of the penguin, and their eggs much more delicate.

September 15th, saw the first brood of penguins. The carpenter finished caulking the punt beforementioned. Employed preparing sea-elephant's skins for the canoe, and a mast and sails for the punt.

On the 21st, experienced a severe gale of wind, with rain, thunder, and lightning, which prevented any work being done. Found all our penguin eggs spoiled.

On the 25th, completed the canoe and got her ready for launching.

(To be continued.)

ERHARDT'S MEMOIRS ON EAST AND CENTRAL AFRICA, AND THE GREAT INLAND SEA OF UNIAMESI.

TRANSLATED BY MR. H. HALL.

(CONTINUED.)

II.—*Middle Caravan Roads to Uniamesi.*

THE valley of the Rufu, which, under the name of Paugani, discharges itself into the Indian Ocean, serves as the most natural and the simplest line of communication (verbindungsmittel) between the coast and the plains of Inner Africa. The early visitors to Uniamesi generally followed its course; setting out from the town of Paugani, in a westerly direction, along the river, until they came into the neighbourhood of Fuga, where they provided themselves with the requisite necessaries for their journey through the uninhabited low country, which extends east and west of the Rufu, where it makes a sharp bend from the north to the east, then crossing the river in boats, they, without encountering a single hill, reached the first tribe in the central plains that have fixed habitations, and who called themselves "Wanamesi." This name was, in order to simplify the pronunciation, changed by the merchants of the coast into Wamamesi, and extended to all the tribes north and south, although they were known among themselves by other denominations. The affinity of the language of these tribes with each other and with the coast languages, also as well as the similarity of their customs and habits, made this a very simple matter. All the natives who came from these plains to the coast are to this day called Wamamesi and their country Uniamesi.* But this very convenient route has been long since interrupted by the savage Wafiomi, through whose territory the road led.

Some new points of departure for these countries were in time used. Bagamoyo and Mboamaji and some other little villages on the coast. The route from these points, their direction, as well as the stations on them, have been laid down from information derived from a native Umamesi, of the tribe of Wasimbua, through whose village, Kiura, the caravan road passed, and who, for years back, visited his native land as a Mahommedan merchant in the ivory trade. His

*As we include all the different tribes of Bechuanas, Kafirs, and Fingoes, under one denomination, let them be Basutu or Bakolo, and Amukusa or Amubaxa, &c., &c.

information has been confirmed by slaves of the different tribes of Umamesi, as well as by travellers from the coast, as regards distances, as well as the boundaries of the different tribes.

The direction of this road from Mboamaji as far as the town Ujiji, on the bank of the great Bahari or inland sea, Uniamesi, is true west. The country is flat, but covered with little round hills, until the abruptly rising hilly district of Ngu is reached. At the eastern point of a high mountain which must be crossed runs a little river which comes from the north, and is a tributary to the Ruaha. The Ugogo country, covered with little hills, has a little lake, which in the hot season has the last fresh water east of the great desert of Mgundu Mkali. This desert extends far to the north, and stretches south for a great extent, as far as the banks of the great inland sea, and is the favourite resort of elephants and rhinoceroses, as well as of their hunters.

Itula, the first village of the Wakimbu, west of the desert, may be considered as the eastern boundary of Uniamesi. From here to Ujiji, the tribes of Wakalaugauso, Wasumbua, and Waha are passed through. The country presents an open plain, and is often marshy and full of little lakes. Only one considerable river is crossed over,—it lies six days' journey east from Ujiji, and rising in the country of Watambala, it flows west through Wavuisa and Waeala, and falls into Ukereme, as the northern part of the great inland sea is called, about half a degree south of the town of Ujiji.

The town of Ujiji is partly inhabited by Arabs and partly by the tribe of Waha. The first possess many slaves and cultivate rice largely. North of this town, sixteen days' journey, along the banks of the Lake, live the athletic and well-formed coal-black Wadusi, and east of them, the Walasoni, in whose country an immense spring of water rises out of the ground to the height of a man, and forms a little lake, out of which flows a considerable stream, running west into Ukereme. All who drink of this water have their teeth died yellow. Seven days south of Ujiji, along the bank of the Lake, live the Wapogo, in whose country a little salt river flows into Ukereme, just where the Lake, losing its north and south direction makes a great bend east and west, and extends,—no Mpogo can tell how far.

From Kirira, the Uniamesi, our informant, visited the Wasambiro, ten days' journey to the north, and the Wamamesi, twelve days north-east of his native town.

Travellers to Ujiji along this route are generally from two to six months on their journey. One month is reckoned to

Itula, one month to Wasumbua, and one month to Ujiji; the last distance is the shortest.

The intelligence received of the Great Lake at Ujiji, is that the waters are fresh, that they abound in fish, and that the waves often run very high; the shores are low. To the north of Wadusi, where the peaks of a lofty range of mountains appear, running east and west, the natives say is the termination, in that direction, of the Lake. The Lake is traversed with boats. Its breadth to the westward is nine days in sailing, and thirty or more with row boats.

III. *Caravan road from Kiloa, on the coast, to the Southern parts of the Great Lake of Central Africa, there called Niasa or Niandsha.*

This is the shortest, most visited, and best known route to the interior, and is much frequented by Arabs and Suahelis, in their slaving expeditions. The journey from Kiloa to the banks of the Lake generally takes thirty days. The information on this road is principally given by a respectable slave-merchant, who has wives and children at the Lake, as well as at his residence at the coast. Starting from Kiloa on the coast, latitude 9 degrees north, longitude 37·10 degrees east of Paris, a flat country covered with small hills is passed over for eight days' journey in a south-westerly direction, and then the Mkufu, a confluent of the Rufuma, is crossed. It comes from the north, but soon takes a south-east course, and in the dry season, is about twenty-four German feet broad and three to four deep. After five long days' journey, the deep Rafuma is reached,—a floating bridge of reeds is thrown across the stream, on passing which a toll of glass beads must be paid. The river here runs slowly, between high banks. East of the river the road divides,—one branch, running to the south, leads to the southern ferry of the Niasa, the other, more westerly, to the northern ferry. At the Wahiao mountains, which run from the north in a westerly direction, and then turn to the south, along the easterly shore of Niasa, the road passes over the mountains.

From their summits, two days' journey from the Gnombo ferry, the travellers look over the precipices and rough country which bound the mountains to the west, until at last the far-stretching Niasa is seen plainly extending from north to south. In clear weather, even the high lands west of the Lake in the land of Waniasa can be seen. Gnombo, on the east bank is the northern, and Mashinga, also on the east bank, is the southern ferry, to which the greater part of the Waniasi come over the dangerous rough lake in frail row canoes.

On the west bank, live the Waniandsha, whose name is changed into Waniasu, and extended to all the tribes who navigate this part of the Lake in canoes.

South of Gnombo, the Lake is called Niandsha Ndogo, or Little Niandsha. Further to the north, where the opposite shore is lost sight of, it is called Niandsha M'Kuba, or Great Niandsha. On the coast, it is called Niasa, a corruption of Niandsha—(Nyassi of old and modern geographers). The inclination of the Niasa country is to the north and east, in which direction all the rivers flow. The tribes inhabiting the high lands forming the watershed are called Wakamdunda (upper country), those living along the southern bank of the Lake are called Wakumbado (low country).

Extent of the Lake.—The direction of the Great Lake is tolerably well ascertained, but not its real extent. Three days' journey south, from the ferry of Zaugue, the Wamnera come to be ferried over, and although there the Lake is not wide, they know nothing of its termination. North of the Zaugue, five days' journey is the ferry Zeuga, opposite Gnombo, where the Niandsha becomes wider. Four days north of it is Kunguo; from there, six days' journey farther, in a westerly direction, is the river Bua; and from there, Wavisa travellers had followed its shores twenty-two days' journey as far as the country of Wakumbu, which lies west of the River Roapura. The eastern shore of the Lake stretches two long days' journey from Gnombo, as far as the village of Sigino, where it turns north-west, and in this direction runs seven days' journey as far as the great desert. Six days' journey further west of the desert, live the Wasukuma, who have followed the shores of the Lake twelve days' journey in a westerly direction, as far as the country of the Wafipa. Through this tribe's land runs a little salt river, in a westerly direction to the country of the Wapogo, where, as already described, the Lake stretches to the north seven days' journey, as far as Ujiji, and sixteen more days' journey to the Wadusi, where they still know nothing of its northern termination.

The width of Niasa, at its most southern ferry Zaudenge, is so small that the boatmen can be called from one bank to the other. Farther to the north (Zaugue), the people can see each other on the opposite banks. But at Zeuga, the opposite bank becomes visible only after several hours rowing. Farther north, its real width is entirely unknown.

From Ujiji, the Lake is crossed over both by sailing and row-boats. The first generally take nine, and the latter thirty, in the Najet to the land of Waboga on the west bank, from which they fetch copper ore, which is smelted by the natives.

As to the population of Eastern Africa, the coast region along the Indian Ocean is inhabited principally by Suahelis, and the population is sparse. The country to the west, as the Wakuafi plains, is uninhabited, with the exception of the highlands; but on the whole, the inhabitants are but few.

On its eastern shores, especially to the north, the country is thickly inhabited, as the travellers say "like ant-hills." To the south, where it turns to the east, are also very numerous tribes, such as the Waguindo, Wahiao, and Wamakua. On the west shore, more to the north, the country is thinly inhabited; not so to the south, where the immense population of Wamiasa shows the source of the slave-trade on the coast, from Cape Delgado to Brava, and so to Arabia, &c.

May the time soon come when these countries will become better known and access may be had to their benighted populations by the messengers of peace, to teach them the true God, the Giver of fertilising rain and fruitful seasons.

Note.—In Mr. Erhardt's map, is shown, in the middle of the Lake, a small Island, twenty miles in diameter, called Kavogo, on which the natives believe an evil spirit dwells, who will overwhelm all persons crossing the Lake, unless they call there and offer up propitiatory sacrifices of a black sheep and a white hen. When he is friendly, the water is smooth and black; when angry, the waves are high and the colour of blood. The island is often wrapped in dense fogs and quite invisible.

THE CAPE OF GOOD HOPE AGRICULTURAL SOCIETY.

BY T. B. BAYLEY, ESQ.

The House of Assembly has thrown out the proposed grant of £100 to the Cape of Good Hope Agricultural Society, when £200 would have been the better alternative.

Although the public papers have not reported in detail the arguments *pro* and *con.* upon that occasion, it is generally understood that the opposition came principally from the Eastern members, and chiefly on local grounds. As far as we can learn from the meagre reports of the discussion referred to, it would appear that the grant of £100 was objected to chiefly because the Cape of Good Hope Agricultural Society was considered to be merely a Cape Town institution, devoting itself exclusively to metropolitan interests, and of no account in a national point of view. Why this belief (if it was a belief) was not corrected, why this conjecture was not

dissipated, why this delusion was not swept away, as so easily it might have been, by some of the honourable members conversant with the subject, is not very clear. The representatives of the farming interests of Malmesbury and the Paarl (two of them at least, viz., Messrs. F. Duckitt, and John Proctor) were elevated to their present position, we may assume, not so much on account of their superior political sagacity (which had not then been tested), but as a tribute to their acknowledged eminence and experience as practical agriculturists, and to their supposed enlightenment of mind on subjects affecting the welfare of the rural population. Why they, or others in the House, well qualified by their connection with the Cape of Good Hope Agricultural Society to explain its proceedings, views, and aspirations, did not come to the rescue, has never been satisfactorily explained, and probably never can be. The Agricultural Society was evidently treated with the cold shoulder, where it might have expected the most cordial greeting; whilst £100 were bestowed on the *library* of a small provincial town, or country village, whichever is its proper title, viz., Uitenhage; as some £300 or £400 had been previously handed over to the library of Graaff-Reinet! When it is borne in mind that the advantages to be derived from these village book-clubs must necessarily be confined within a very narrow span, and that the operations of the Cape of Good Hope Agricultural Society are tending towards the advancement of agricultural enterprize and skill throughout the whole colony, the distinction drawn by the Cape Parliament to the prejudice of the latter seems to be, if not unfair, certainly inexplicable. It may be all very well to satisfy the literary cravings of our rural brethren with Bacon's essays, and to refresh the grazier's soul with Pierian fountains, but the *material*, instead of the intellectual, deficiencies of our country friends ought perhaps first to be considered.

The Cape of Good Hope Agricultural Society may be considered as the lever striving to upheave and rend asunder the indurated crust which obstructs our colonial growth. The motive power at present available is not sufficient for the purpose, and Parliament denies its aid.* What is to be done now? But before coming to this point, I will anticipate the inquiries of those who may possibly dispute the claim of our society to be considered a national institution; and I think I shall be able to show that it deserves more consideration and

* Since this came to hand, the Parliament has voted £200 to be distributed amongst the Agricultural Societies of the colony.—Eds.

liberality than it had the good fortune to meet with in a place paved with the best intentions, but somewhat slippery in its foothold.

Nothing is further from the reality than that the Cape of Good Hope Agricultural Society desires to restrict its operations to Cape Town or the immediate neighbourhood. The annual show of live-stock is held in Cape Town because there is no other place more suitable for it. As an exhibition of our agricultural development it is usually a failure, and nothing better can be expected for many years to come. The locality of Cape Town, the distance of the principal cattle-breeding and sheep-producing districts of the colony, the difficulties, expense, and risk of transport, preclude the possibility of valuable stock appearing in any number at these shows. Feeling that they are our weak point, and that the beggarly array of empty boxes on these occasions is only bringing us into contempt, and furnishing arguments against the utility of the society itself, I am of opinion that the suppression or suspension of these annual exhibitions would be desirable, leaving us free to grapple with more serious work. But in this matter I have been overruled. There seems to be an impression amongst our working committee-men, that as three-fourths of our number are residents of Cape Town, they *expect to see something for their money*, and that they will not continue to subscribe without what the French call a "spectacle" of some kind. In this, no doubt, there is some force, but I contend that a national society, such as ours, ought not to be cramped by such fetters, and that the Colonial Parliament should relieve it from the dominion of these Punch-and-Judy considerations. If the annual show of live-stock (such as it has been for many years, and must be for many more), is to be regarded merely in the light of a gala day, let us have Punch and Judy by all means, and dancing dogs, and tattered minstrels, and jumping in sacks, and pigs with soaped tails, and any other exhilarating accessories of that kind! But then give the affair another name. At present it must be confessed, these annual gatherings are gloomy festivals enough; vexatious to those concerned in them, as misrepresenting our agricultural *status*, and humiliating to the colony, when strangers visit the scene. Until facilities of transport from the country districts are improved, and we can offer adequate inducements to distant competitors, we cannot expect to make any advance in this department. Annual exhibitions of stock may be deemed expedient, but if they are to be held in Cape Town, I am decidedly of opinion they should be confined to horses and cows.

I do not suggest particular attention to horses because my predilections run in favour of the "noble animal," but because the best horses of the western province are to be found in the immediate vicinity of Cape Town, the Paarl, Stellenbosch, Malmesbury, &c., &c., and can be assembled without inconvenience to their owners. Thus it is we have generally a very fair muster of them, whilst the metropolitan public and private dairies furnish a respectable troop of milch cows. On the other hand, of slaughter cattle and sheep there is always a plentiful scarcity. The prizes formerly assigned to rams having failed for some years to excite any competition worthy of the name, have been withdrawn. Funds admitting, the Cape of Good Hope Agricultural Society would probably be disposed to offer such prizes again, as grants in aid to provincial societies which seem to be doing anything for themselves, and doing it in the right way. Encouragement of this kind to district institutions the Cape of Good Hope Agricultural Society is bound to afford, and is most anxious to afford, but at present is not in a position so to do; though if the Colonial Parliament elects to give its support direct to these distant societies without our intervention—*a la bonne heure!* we shall find no fault with an arrangement which relieves us from much responsibility:* only, judging from the manner in which pecuniary grants are sometimes dispensed by the House of Assembly, it would appear that no small proportion of them fall not to the most deserving objects, but to the most noisy and pertinacious suitors.

It is not, however, alone through its connection (real or ideal) with remote agricultural societies that ours assumes to be a "national," and not a local, institution. We can do more, and have done more *for the colony*, by bringing to public notice and into more general use, farming implements and machinery of various kinds, than prizes for live-stock, however liberally distributed throughout the country, will accomplish in a century. Not that I would undervalue the recent introduction of the Angora goat, which, from the extinction of the pure breed brought to South Africa many years ago, may be considered a new discovery, and therefore justly deserving not only honourable mention, but a substantial reward. This, however, the Cape of Good Hope Agricultural Society is not able to give, and it is a reproach to us. Nor would I dispute the importance of maintaining and encouraging the importation of "fresh blood," from

* The Executive Government is *now* invested with this responsibility.—Eds.

Europe, in horses, cattle, and sheep, but this practice is now recognised as a necessity by our principal stock-farmers, and self-interest will keep it going.

And here seems the place for me to remove an apparent misconception of Mr. F. W. Reitz (*Cape Monthly Magazine*, No. 4, p. 244) as to the intention and aim of the Cape of Good Hope Agricultural Society in proposing to execute commissions to Europe for such animals as the enterprising colonial breeder might wish to procure. This proposition was not made with a view to discourage private enterprise, but to enable the agriculturists of the Western province to obtain the exact description (or as near as possible thereto) of breeding stock they might desire to have, instead of depending, as most of them do, on chance importations, and being compelled, as they too often are, to put up with horses, bulls, and sheep of an inferior quality, and perhaps unsuited to their peculiar requirements.

In making this offer to the agriculturists of the Western districts, the committee of the Cape of Good Hope Agricultural Society did not consider that they were "casting their bread upon the waters to find it after many days," but that some immediate beneficial results to the colony at large would arise from it. That this has not happened is not *our* fault; and it will surely be admitted, that a society which tenders its services in such a way is not disinclined to work, and that Cape Town is not the sole object of its solicitude,—the one "*objet aimé*" of its affections.

In referring to what the Cape of Good Hope Agricultural Society has already done for the colony, I have little hesitation in affirming that much of the improvement which has taken place in our Cape wools (not so much in their quality as in their "getting up"), and their advance in the London market, is owing to the prizes of £30 and £15, given by it, in the years 1853 and 1854. The conditions of the competition on these occasions were, that each grower was not to send less than 2000 lbs., and that the several lots were to be sold at public auction in London, bearing only the private marks of the secret committee in Cape Town (so that there should be no collusion, or bidding by proxy at the sale), and that whatever lot brought the highest average price should have the £30, and the next to it the £15. This arrangement was specially notified to the broker in London; and as the competitors mustered in considerable force, the struggle and the novelty of the affair excited extraordinary interest amongst the London buyers, especially those connected with the

colony; and as the wools were really of a superior quality, and were carefully "got up," the Cape clips generally began, from that time, to be better appreciated than they had been before; and have ever since held a comparatively high position in the English market. But for this experiment of the Cape of Good Hope Agricultural Society it is quite possible (certainly it is my belief) that the Cape wools would have remained to this time in their former obscurity, or, at all events, would not have emerged so rapidly from it. The collection and exhibition at the public sales in London of so large a quantity of fine wool removed a prejudice which had long existed against this branch of our colonial export, by showing that *some* of the South African sheep-farmers had the right blood in their flocks, and sufficient sense in themselves to prepare their clips properly for market; and thus came the hope, which has since been so amply realised, that others would soon follow in their steps, and deserve the same commendation. May we not say that the whole colony has shared in the benefit accruing from this movement?

I have not room in this paper to discuss the results which followed the exhibition of ploughs, and the ploughing match at Mowbray a few years since, but I will revert to them at some future time. In the meanwhile, I must take leave to call the attention of all who are interested in such matters to the trial of the *drill* machine at Mr. Mostert's farm (Mowbray), on the 8th of July. The advantages to be expected from the use of this machine have been briefly explained in the following advertisement of the Agricultural Society:—

"The *drill* machine is now in general use throughout Europe, and is found to be of the greatest advantage to the farmer. It deposits the seed at regular intervals, and at one uniform depth, so that the crop is perfectly regular and even in growth. The whole ground is occupied with the plant, instead of bare patches being left here and there (as must occur in hand-sowing), and each plant has room for itself. The manuré is deposited *with the seed*, and the saving of both, by placing the right thing in the right place, is very great, whilst the machine itself is very simple and easily worked. The one that will be exhibited on July 8th has been in use for three years, without requiring any repair, beyond one cog of a wheel.

"On the day above mentioned, one piece of ground will be sown with the hand, and the other with the drill; the same quantity of seed and manure being given to each, and thus the future progress and yield of each will be within the sight, and subject to the comparison of all whom this experiment may concern."

In addition to its meritorious qualities just enumerated, I

must add that the *drill* can be set so as to deposit the seed thickly or thinly, at the discretion of the driver, and that the plant, growing in straight lines, there is far less injury to the crop when the weeders come into it, as they can walk between the rows, and the most inexperienced amongst them can have no excuse for uprooting the wheat by mistake for wild oats, or other weeds.

In England, the horse-hoe is used between the drills, and renders the weeding a very quick operation. Having witnessed the drill at work on Mr. R. Hare's farm near the Paarl, I can testify that it will sow as much ground in a day as three double-furrow ploughs and two single ploughs can prepare for it; and I have never seen in the colony such even and luxuriant crops. The saving of manure is some consideration, if it has to be bought,—such as guano; and being placed by the drill where it is wanted, instead of lying in heaps like farm manure for weeks before it is spread,—the farmer's eye is not offended with those hideous patches of rank plants so common all over the country; nor are his profits diminished by their premature maturity, and loss by birds, and wind, and heavy rains. It has been proved also that the grain crops sown by the drill are more healthy, and less liable to be "lodged" by heavy weather, than those sown broad cast; and Mr. Hare informs me that he has found the former superior beyond comparison in every respect. The exact difference between the produce of two equal pieces of land, the one drilled, and the other hand-sown, I have unfortunately forgotten, but I am sure that it was not less than as three to two in favour of the former.

With permission of the Editors, I shall be glad to offer a few more remarks on the present position and prospects of the Cape of Good Hope Agricultural Society, in some future number of the *Cape Monthly Magazine*.

SONG.

I cannot choose but love thee,
Thou sunny child of light,
Thy smile would cheer a dungeon's gloom
And banish mis'ry's night.

And on thy silvery voice, love,
I cannot choose but dwell,
For there's music in its breathings
And magic in its spell.

That fair unclouded brow, love,
Unscath'd by sorrow's blight,
'Twere more than human coldness
To view without delight.

And worshiping those rosy lips,
Ah! who shall deem it sin?
What hath nature half so lovely
Save the pearls that are within?

Those sunny tresses flowing, love,
That on thy bosom twine—
That bosom—nay, I wander now—
Its tenant is not mine!

Yet, lady, let me still love on—
'Tis all the boon I crave—
The hopes that I had cherish'd once
Long, long have sought the grave.

A REAL GHOST STORY.

Mr. D'Israeli somewhere, very often indeed, has told us that the great want of the age is Faith. Not exactly in the ecclesiastical signification of the word, but in a much broader sense. It may comprehend, for example, faith in Mr. D'Israeli as the coming man, faith in Protection, faith in everybody except Whigs and Peelites. In the land we live in, it might include faith in the wisdom of Parliament, in the Harbour of Refuge, in all the most charming schemes that have entered into the heads of colonial legislators for making South Africa a new Paradise. How few of us have this faith! How few of us believe in everything! Yet I suppose we have a fair share of the faith that is in the world. What say the Montefiores and the mining gentlemen?—the men of brass and the men of copper, either metal speedily convertible into "tin."

It certainly is a great want, this deficiency of Faith; for no doubt we should be much more happy and contented if each man were to place entire confidence in what every one else tells him. This is a point to which we fear that poor, doubting, cautious, wavering Humanity will never attain; but, on the other hand, it is scarcely necessary that we should

be so extremely incredulous as we are all becoming. Our forefathers believed implicitly in witches and their miraculous powers: we enlightened moderns reject their creed; but for what reason, I shall be puzzled to say. "Do you believe in witches, then?" cries a disgusted reader, ready to fling down the *Magazine* in a rage. "Perhaps," I reply. But, at all events, I believe in ghosts. "How monstrously absurd!" retorts the reader. Very well, my good sir; then will you be kind enough to read the following true tale, which I had from the lips of one who never lied, and reconcile it with your disbelief in spiritual visitations.

A party of jolly fellows were seated round the fire one cold winter's night, in Liverpool, smoking big meerschaums and imbibing various liquids, which our publisher asserts to be poison. Without arguing that question, it must be confessed that a healthier looking set of young men could scarcely be seen than the present group of grog-drinkers—so that, like Voltaire's coffee, the poison must have been very slow in its operation.

The conversation was varied enough. Sometimes it touched on the last debate in the House of Commons, and then wandered to Mademoiselle Cerito's legs: now it discussed the state of Europe, and now the respective merits of two bull-terriers, the property of one of the party: then it fell upon literature, and then jumped away to the last run with Impey Stanley's hounds. Occasionally, it assumed the form of "chaffing"—each party coming in for his turn to be peppered, and bearing it with all the good humour in the world, fencing his best, and retorting when his turn came to be an attacking party. For be it observed that as we see a poor cur set upon by a big dog, and immediately chased and worried by every other dog within hearing of the row, so when any human being is picked out as a butt, every man present seems to think it his duty to keep up the game, and let off all the smart things he can invent, as arrows wherewith to pierce the doomed one. No matter, so long as the butt is good-natured,—and all the present party were so.

"I say, Ned, when do you intend to leave off being taken for a Jew old-clothesman? Will you believe it, I heard a man cry out of a window to him, to-day, 'hi! hi!' showing a pair of dilapidated breeks, which he wanted Ned to purchase?"

"Still harping on my beard, eh Phil. If you were not so foxy about the chin, you would wear one yourself."

"I'll be shot if I would. Do you think I desire to be taken for a purchaser of old unmentionables—or a French

snob—or a German student—or some confounded thing of the kind?"

"No fear of either, my boy. Your celestial nose will protect you from the first; your Lancashire brogue from the second; and your total unacquaintance with any book in the world (except Ruff's Guide to the Turf) from being mistaken for a student of any nation on earth."

Phil was getting the worst of it.

"But, Ned, seriously, when do you intend to cut off that beard?" he asked.

"Never, in *this* world," answered Ned.

A roar of laughter followed this grave announcement of the possibility of Ned's shaving in the next world.

"Well, old fellow," cried Phil, "as you seem to think it probable that you will take it off in the other world, will you promise, in that case, to send or bring it me as a keepsake. I mean if I am unlucky enough to outlive you?"

"I promise," answered Ned, quite seriously.

A fresh laugh followed this promise; but Phil said gravely, "It's a bargain."

* * * * * *

Two years had scattered the little party whom chance had brought together that night at Liverpool. One was reading hard for his degree at Oxford; another was looking out for his first brief or circuit; a third was physicking rustics in a remote village, and giving "advice gratis (advice to take his physic, of course), from 10 to 4 daily;" one was drilling or being drilled in Dublin barracks; and another was preaching his first sermon to a congregation, all the female portion of which admired his beautiful doctrine, and still more beautiful curls.

Phil was a wanderer on the face of the earth. He had gone to America for no particular reason, except from a feeling of restlessness perfectly irresistible in some natures. He had formed several schemes of doing something great, and had ended by doing nothing; he had spent a great deal of money and been robbed of much more; and he still found himself possessed of an immense amount of restless energy, with nothing to expend itself on.

About this time, the Texans and Mexicans were cutting each other's throats with laudable pertinacity. Lookers-on, especially in the new world, generally sided with one nation or the other, in opinion; but some even went further, and joined the ranks of the belligerent parties, and fought and

bled for them. Among these latter extremely foolish and reckless individuals was our friend Phil. He had as strong a fancy for fighting as a Donnybrook-fair Irishman; it seemed such an excellent method of getting rid of his superfluous energy. And, then, he managed to persuade himself not only that the Mexicans were a set of scoundrels (which no one in his senses has ever denied), but also that the Texans were a fine set of fellows, which is highly problematical. Actuated by these combined feelings, he sailed from New York for Texas, with a single letter of introduction to a Colonel of Texan Rangers. The letter procured him a commission in the Colonel's own regiment; and before long, Master Phil had fighting enough to satisfy even his voracious appetite for that amusement.

He liked it just as well when he became personally acquainted with it, as he had fancied he should, before he had tried it. He was perfectly fearless, strong, active, quick, self-collected—a crack shot and a first-rate rider. Little marvel, then, that he was considered one of the best officers in the service, and was beloved by his men, who were just the fellows to follow wherever such a man would lead.

The Fates, however, did not entirely befriend him. He formed one of an unlucky party that were surrounded by an overwhelming force of Mexicans. A church at hand was the only place of refuge. Into this church the Colonel resolved to lead his men (against Phil's advice, by the way), and to make it a kind of fortress. I am not going to write the history of the bloody siege that followed. Suffice it to say that two hundred and thirty men entered the church—fifteen alone came out of it alive. Amongst the latter were the Colonel and Phil.

A drum-head court martial followed; for by some extraordinary ingenuity, the Mexicans chose to consider the Colonel and his men not as legitimate enemies, but as "rebels." The Colonel was condemned in about ten minutes, and shot within ten more. Phil's turn came.

"Who are you?"

"An Englishman."

"Humph!" There was magic in that word. The Colonel was a Texan born, but an Englishman was a different sort of animal, and England was an awkward nation to affront by murdering one of her subjects. A few more questions were asked, and answered boldly by Phil, who was fully prepared to be shot like his Colonel. At length, to his surprise, he was told that as he was very young and had probably been

seduced by others into aiding in this wicked rebellion, his life would be spared, but he must march out of the country forthwith, and if found within it after two days had passed he would be shot.

Most men would have thought of nothing but their lucky escape at such a moment; but Phil was a remarkably cool young gentleman. So, without showing any emotion or expressing any gratitude, he quietly informed his judges that he had no money, and could not travel without it. Whether the court was astonished, I know not, but it took the hint, and actually gave him a small supply of money; whereupon Phil made his bow and walked off, *en route* to the States.

He had a wound, however, which was more severe than he imagined, and being only hastily dressed, by himself, it began to pain him greatly. Before his first day's march was half over, he was thoroughly exhausted, and took shelter in a deserted hut, which he found on the roadside. Here he managed to re-dress his wound, and, the pain subsiding, he fell asleep.

It was dark when he awoke—that is to say, the sun had set; but to his surprise, a fire was burning on the hearth, and a queer-looking man was sitting on the ground and warming his hands. Phil's movement, as he awoke, attracted his notice.

"Well, stranger," was his greeting.

"A States-man," thought Phil; "but what can he be?"

A short conversation followed, in which Phil told his history, and his new friend declared himself a backwoods hunter, and invited Phil to journey with him to his home in the west. "Any port in a storm" being one of Phil's maxims, he gratefully accepted the offer. The hunter was a good surgeon, in his way; and before they reached their destination Phil's wound gave him no more trouble.

He lived with the hunter about three months. And here, if any soft-hearted reader should imagine that Phil's life must have been a most monotonously miserable one, at this time, let me whisper the fact that the hunter had a daughter, one of the loveliest beings in the world. True, she had no education; she could neither write nor read; her costume was utterly unlike that of modern civilization; she knew nothing of crinoline except in its primitive condition of horses' tails, and she wore her own figure instead of that of a Parisian corset-maker.

With all these sad drawbacks, Phil fell in love with her—or fancied so, which is about the same thing. He vowed that

the best bred lady in the world was not more utterly free from vulgarity; that her taste was as refined as the most finished of finishing governesses could have made it; and her grace unsurpassed in any ball-room of London or Paris. At first he thought of teaching her everything he knew; but he soon gave up the idea when he found that she could give him more instruction than he could give her. And, besides, he shrunk from the idea of spoiling what God had made so beautiful and perfect. Alas, poor Phil! is there not to this hour a little canker-worm at work in that brave heart of yours? and has the fair child of the West no connection with its existence?

But to proceed with our tale. One day the old hunter announced his intention of setting off to a camping-ground about a month's journey distant, and asked Phil if he would remain where he was during his absence. Phil consented, and pretended to think that the lovely daughter was to be left behind also; but he must have known better—for even in the simple and primitive life they led, neither the old hunter nor his daughter forgot, what, for want of a better word I must call by the detestable name of Propriety—the bugbear for which we so often make ourselves miserable. The father and daughter went away together, and Phil was left entirely alone, with the exception of a half-wild servant boy.

His life was, certainly, dull enough now. Sporting was his only occupation, and even of that he soon wearied. However he had promised to await the old hunter's return, and he would not fail to do so. One night he woke suddenly from his sleep and heard a sound, or fancied he heard one. The moon was shining through his little uncurtained window, and by its light he perceived the figure of a man, with his back turned to him. Knowing that no one lived on the place but himself and the servant boy—that travellers never passed that way—that there were troops of fierce dogs about the house that would be apt to tear an intruder to pieces, he was rather startled. He raised himself on his elbow and stared hard at the figure. He was apparently shaving!

"Holloa!" cried Phil.

The figure turned—its face was ghastly pale—but surely he knew those features—surely they were those of Ned Bolton!

The figure pointed to its chin, and smiled.

"Am I mad?" thought Phil—"or am I dreaming?" and he rubbed his eyes violently.

The figure was gone.

A few minutes' calm reflection sufficed to convince Phil that he had been dreaming a very absurd dream. He rated himself strongly; began to suspect that his nerves must be losing their tone; laughed at his fancy, and went to sleep again till broad daylight.

When he next awoke, he had almost forgotten the interruption to his sleep in the night. He sprang out of bed and began to whistle. Suddenly he stopped before the little table in the window. His eyes absolutely glared with surprise or horror, and his cheek (perhaps for the first time in his life) paled with fear. What did he see?

Lying on the table was one of his own razors that had recently been used—beside it was a large tuft of hair like a man's beard, and it was exactly the shape and colour of Ned Bolton's!

A long time elapsed ere Phil could collect his senses and settle his nerves. When he did so he took the tuft of hair, folded it in his pocket-book, and made an entry there of the date of this mysterious occurrence—"15th June, 184—."

* * * * * *

A month or two later, the hunter returned *alone*. Where was his daughter? The old man's look of misery told the tale—she was dead, and poor Phil was again miserable.

* * * * * *

Another year brought Phil back to England. He had sown wild oats enough, and determined to settle steadily to a profession. There were the usual rejoicings over the prodigal's return, and the usual string of questions about old friends.

"And Ned Bolton?" asked Phil.

"Dead, poor fellow; we kept the paper that mentioned it on purpose for you—here it is."

Phil glanced at the date—it was the 15th June, 184—!

NIGHT: A REVERIE.

Nay, harbour not, my soul, the gloomy thought,
That nothing beautiful belongs to night;
For sweetest are the inspirations caught
By gentle poet 'neath her queen's pale light!
But for the glories of the lunar beam,
Shedding its influence on all around,

Man's mind would ofttimes lack a fruitful theme,
And lovers' hearts less joyously would bound.
Let not "sun-worship" lure thee from the charm—
If less it be—of Nature's shadowy hour,
To DAY's past toil NIGHT offers precious balm,
And sleep into the troubled brain doth pour!

What tho' the blithe lark hail the opening flower,
When sunbeams gild the "incense breathing morn?"
Are not melodious songs from bower to bower—
Of Philomel—upon NIGHT's zephyrs borne?
And is not each minute and distant star,
A watchful eye of HIM who reigns above,
And pilot to the mariner afar,
Seeking to gain his land of birth and love?
Do we not read in NIGHT's all pensive queen,
Around whose throne her starry courtiers dance
In never fading, ever glorious sheen,
The "poetry of Heaven" at a glance?

Well is it said "NIGHT has her worshippers!"
When burns the midnight lamp, the poet's soul
Respondeth to the flame, ere Nature stirs,
Its reveries to disturb or to control!
Man learneth wisdom at this 'witching hour,
When, daylight fled, the taper dimly burns,
And marks the working of a Ruling Power,
How life, like oil, soon wastes, but ne'er returns!
In NIGHT, the drooping eyelid finds repose;
From her the way-worn traveller sleep doth borrow;
Her dews alight upon the lonely rose,
That it may bloom more perfumed on the morrow!

Though to the gaudy butterfly and bee,
That flutter 'neath the dazzling noontide beam,
DAY's luring sweets may more delicious be,
NIGHT hath her thousand charms in one brief dream.
Responsive to her spirit's opiate wand,
Bright fay-like images anon will rise
And dance around the couch, a happy band,
Till LUNA, at morn's bidding, wanes and flies.
Then harbour not, my soul, the gloomy thought,
No beauties fall to NIGHT's more modest lot!
'Neath her dark veil fair features may be sought
That can be *felt*, though we may *see* them not!

R. M.

LITERARY REVIEW.

Last month we complained that, for want of sufficient funds, the Public Library was unable to purchase regularly, the Transactions of the leading learned societies at home, and many other most important works of reference besides. We have another instance this month of the loss which the public sustain in consequence. We have now before us, kindly lent by a friend, a work full of the deepest interest to the colony, published last year, and at the Public Library altogether unknown. We refer to the fourth part of the seventh volume of the transactions of the Geological Society, containing the most valuable account that has yet appeared of the geology and palæontology of Southern Africa. There is, first, Mr. Bain's paper on the subject, as read before the Geological Society. To this are added by Mr Sharpe, late President of the Society, and Mr. J. W. Salter, most valuable descriptions of the fossils from the Secondary rocks of the Sunday and Zwartkop Rivers, and the palæozoic fossils sent home by Mr. Bain and Dr. Atherstone; a report by Mr. Sharpe, Dr. Hooker, and Sir P. de M. Grey Egerton, on the shells, wood, and ichthyic fossils from the Karoo desert and its vicinity; and a further report on the reptilian fossils of the Eastern Province, by Professor Owen. The volume contains, further, Mr. Bain's geological map; admirably prepared geological sections from Table Mountain to the Middle Roggeveld, and from Cape Receife to the Orange River; and an exceedingly beautiful series of plates, depicting all the leading types of fossils hitherto exhumed in this colony.

Mr. Bain's own account of the geological structure of the colony, and as illustrated by his map and sections, is full of interest, and, upon the whole, we believe, satisfactorily accurate. In the Western province he represents the ground formations of the whole to be granite, but, though lower, yet more recent than the clay-slate which rests upon it, and is in many places inter-penetrated by it. This clayslate he declares to be wholly non-fossiliferous; to be of enormous thickness, and always stratified at very high angles, at times almost vertical, as in the Lion's Hill or Robben Island quarries. Above the clayslate, and resting on it unconformably, is a vast deposit of unfossiliferous sandstone and conglomerate, well illustrated in Table Mountain, Lion's Head, as well as in all the great mountain ranges in the south-west of the colony. He estimates its thickness, and we believe, on tolerably satisfactory grounds, at from 10,000 to 12,000 feet; and ranks it as an equivalent of the Lower Silurian period In the Warm and Cold Bokkevelds are a series of argillaceous schists, and coarse red sandstone resting on the formation last mentioned. This, from the abundance and beauty of its fossils, is the most important in palæontological interest of all the Western province formations The fossils consist almost wholly of Trilobites, Crinoids, Brachio-

podas, in considerable variety; and from the general characteristics of these fossils, Mr. Bain has inferred that the formation is Upper Silurian. Mr. Salter and Mr. Sharpe differ, slightly, from this opinion, and after the examination of the fossils before them, have concluded it to be more recent, and most probably of the Devonian or Old Red Sandstone period. Passing further inland, and not very far beyond the Karroo Poort, we meet with a dyke-like band of igneous rock, and which, Mr. Bain tells us, trends along an enormous extent of country, passing in a waving line from the Bushman Karroo of Namaqualand, south-eastward through the southern portion of the Great Karroo, and onward, terminating at the mouth of the Gualana river, in Kafirland. He calls it a Clay-stone porphyry, and proceeds to speculate on its probable origin. He first endeavoured to discover dykes, as channels of eruption for this large mass of igneous rock, but failed in finding any. Another theory of his, that it might possibly have been an aqueous deposit, he considers untenable himself; and forthwith, with characteristic boldness (we mean scientific boldness), he propounds an idea which we fear is too premature to be generally adopted yet. He is disposed to attribute the claystone porphyry to a primeval vast volcano, somewhere near the present junction of the Vaal and Orange Rivers, and thence "deluging, with fiery billows, the Silurian plains, and spreading ruin and desolation over the carboniferous forests for tens of thousands of square miles?" This is certainly a grand speculation, and it may possibly be a perfectly accurate one; but it is scarcely yet, at least from all the data Mr. Bain supplies, sufficiently supported to be generally accepted. This, by the way, we would venture most respectfully to suggest is, in our opinion, Mr. Bain's only fault as a geologist. An admirable collector of fossils and facts, with a warm enthusiasm for the study he has selected, and with great abilities for conducting his researches in it, Mr. Bain is not unfrequently disposed to give the rein to his imagination, and speculate and theorise on data too limited to bear the weight of the superstructure resting on them. We do not say this in any way to underrate Mr. Bain's distinguished eminence and success as the South African geologist. For his character and position in the scientific world we have the highest possible respect; and the volume which we are now noticing is a monument to his reputation which he very thoroughly deserves.—In the Eastern Province, and resting below this claystone porphyry, is what the author seems to have satisfactory grounds for concluding to be a Carboniferous formation, differing little in lithological structure from the Devonian sandstone of the Western. No workable coal has been discovered in it; but fossil plants, characteristic of the Carboniferous epoch, have been found, particularly in the neighbourhood of the Kowie. They are now in the Geological Society's Museum, in London. According to Mr. Bain's map, this Carboniferous formation extends through the Winterhoek and

Zuurberg ranges, along over Albany, and eastward to the sea, from the Gualana to the Bushman's River. Above the claystone porphyry is the vast area of what Mr. Bain calls the reptiliferous strata. This covers the whole northern portions of the Karoo, extending north-eastwards, at least, to the Caledon River. Mr. Bain's opinion of the lacustrine origin of those vast beds is well known. The grounds on which he comes to the conclusion that such a lake did at one time exist there, are the general uniformity and homogeneity of the deposits; the great abundance of fossil wood, and the similarity of the vegetable remains found through the range of these beds; the large quantity of freshwater plants traversing the strata in the vertical position on the spot where they grew; the peculiar character of the reptiles found in these strata, and unknown elsewhere; and the general absence of marine exuviæ, and the presence of small freshwater shells. We observe that Professor Owen is of opinion that the extraordinary bidental reptiles here alluded to, and their numerous congeners, are probably of the New Red Sandstone epoch, and therefore among the most ancient of reptiles. Mr. Bain gives a general brief sketch of the superficial deposits of calcareous tufa, such as that forming the low limestone hills at Green Point, or the limestone rocks of the Duivenhok's River, in Swellendam. He thinks that these are the detritus of the Tertiary deposits, which at a former period, he has no doubt, everywhere fringed the coast. Frequently resting on these, are still more recent beds of marine shells, similar to those now existing in the neighbouring seas, and not seldom containing the remains of recent land animals, and even fragments of native pottery, and other works of man intermingled. From this the inference is natural that those beds are elevated sea-beaches, raised within the historical period. Some traces of such beds have been observed even on the Camp's Bay slope of the Lion's Head, and are common at the mouth of the Fish River, Kowie, Van Staaden's River, at Mossel Bay, and Port Elizabeth.

The greenstone caps, locally known as *kopjes*, which form so marked a feature in the Karroo and north-eastern portions of the colony, are beautifully illustrated in the sections prepared by Mr. Bain; and the trap dykes, from which the igneous masses were belched forth, are clearly traced. The plates appended to the volume contain most exquisitely figured representations of all the characteristic fossils discovered; and we only regret that there is not a more complete collection of them arranged and exhibited in the palæontological department of the South African Museum. Last month, we are happy to understand, a very perfect specimen of the Dicynodon head has been received. We end this hasty notice of Mr. Bain's work as we began, by expressing again our regret that such valuable writings as these Transactions are should not be regularly received at the Public Library.

A valuable philological work on the languages of South-

eastern Africa has just been presented to the Public Library by Dr. Bleek. It consists of a comparative vocabulary of the dialects of Lourenzo Marques, Inhambane, Sofala, Tette, Sena, Quillimane, Mozambique, Cape Delgado, and Maravi. It is drawn up chiefly from the manuscripts of Professor Peters, of Berlin, who spent some six years on the Mozambique coast, and the whole is published by the Foreign Office. Dr. Bleek gives it as his opinion that "the languages of these vocabularies all belong to that great family, which, with the exception of the Hottentot dialects, includes the whole of South Africa, and most of the tongues of Western Africa,—certainly the Otsi or Ashantee,—the Bullom and the Timneh of Sierra Leone."

The Rev. Mr. Döhne is busily engaged now on another important work, illustrative of the native languages of this continent. It consists of a Kafir Dictionary, which, judging from specimen sheets now before us, promises to be an exceedingly elaborate and valuable production. The author enters, with great minuteness and detail, into the etymology and various significations of the words introduced into his lexicon. We select one as a specimen of the rest:

"AMA, pri. n. (From a, [see Prim.] and ima, to move, to stand.) [The signification of this verb comprises chiefly animal and spiritual life, or bodily and local movements, as also a particular form, mode, or condition in which a thing may move or stand, denoting, therefore, human kind, being or species, or specifying the proper names of individuals and things.]

"It is used as the nominal form for the pl. of nouns which have in sing. *umu*, *ini—in*, and *ili—i* Specifying—

"1. Stem or stock of a family, *as:* ama Zulu, i. e.: Zulu nation;—2. A race or generation, *as:* amandulo, i. e.: people of olden times)—3. Progeny, branch of a family,—branch of a mountain, *as:* ama Kahlamba, i. e.: Drakeberg with its branches;—4. Relation of a family, society, sect, &c., *as:* amanina, amadoda;—5. All special and great objects of creation, *as:* amazulu, heavens; amanzi, water; amazwe, lands; amatafa, flats; amatye, stones; &c.

"In stems of verbs or compounds it retains all these significations, especially those of relation, proportion, balance, similitude, &c., e. g.: alama, gamata, nyama."

The work is to be published by subscription, at half-a-guinea a copy, and parties interested in it are requested to communicate with the author, whose address is—"The Rev. J. L. Döhne, care of Mr. Pike, Cape Town."

Last month, we intimated our intention of returning to Miller's *Testimony of the Rocks*. We have no room now for a detailed criticism of it, but we give what our readers will probably prefer, an extract, which, written as it is with rare eloquence and force, presents a beautiful illustration of the union which so intimately exists between the higher forms of scientific speculation and the most real spirit of genuine poesy. The author having stated his geologic doctrines of the progressive eras of the earth's pre-Adamic history, sketches the outlines of a second Paradise Lost, adapted

to the new truths which modern science has revealed. He says: "the late Robert Montgomery has rather unhappily chosen Satan as one of the themes of his muse: and in his long poem, designated in its second title 'Intellect without God,' he has set that personage a reasoning, in a style which, I fear, more completely demonstrates the absence of God than the presence of intellect. It has, however, sometimes occurred to me that a poet of the larger calibre, who to the divine faculty and vision added such a knowledge of geologic science as that which Virgil possessed of the natural history of his time, or as that which Milton possessed of the general learning of *his*, might find in a somewhat similar subject the materials of a poem which 'posterity would not willingly let die,'—which, if vivified by the genius of some of the higher masters of the lyre, broad of faculty, and at once great poets and great men, might prove one precious boon more to the world, suited conformably to the special demands of these latter times to

> 'Assert Eternal Providence,
> And justify the ways of God to man.'"

And then follows the subjoined argument of this *possible* poem. It is introduced into the lecture on Geology in its bearings on the two theologies,—the ancient cramped theology of bigots, who, with the doctors of Salamanca, could condemn the geography of Columbus as a blasphemy; or, with the inquisitors of a later age, decried the astronomy of Galileo as daring impiety,—as contrasted with the broad, liberal theology of a Pye Smith or a Chalmers in the present day:—

"There has been war among the intelligences of God's spiritual creation. Lucifer, son of the morning, has fallen like fire from heaven; and our present earth, existing as a half-extinguished hell, has received him and his angels. Dead matter exists, and in the unembodied spirits vitality exists; but not yet in all the universe of God has the vitality been united to the matter: animal life, to even the profound apprehension of the fallen angel, is an inconceivable idea. Meanwhile, as the searce reckoned centuries roll by, vacantly and dull, like the cheerless days and nights over the head of some unhappy captive, the miserable prisoners of our planet become aware that there is a slow change taking place in the condition of their prison-house. Where a low, dark archipelago of islands raise their flat backs over the thermal waters, the heat glows less intensely than of old; the red fire bursts forth less frequently; the dread earthquake shakes more rarely; save in a few centres of intenser action, the great deep no longer boils like a pot; and, though the heavens are still shut out by a grey ceiling of thick vapour, through which sun or moon never yet appeared, a less gloomy twilight struggles at noonday through the enveloping cloud, and falls more cheerfully than heretofore upon land and sea. At length there comes a morning in which great ocean and the scattered islands declare that God the Creator had descended to visit the earth. The hitherto verdureless land bears the green flush of vegetation; and there are creeping things among the trees. Nor is the till now unexampled mystery of animal life absent from the sounds and bays. It is the highest intelligences that manifest the deepest interest in the works of the All Wise. Nor can we doubt that on that morning of creative miracle in which matter and vitality were first united in the bonds of a strange wedlock, the comprehensive intellect of the great fallen spirit—profound and active beyond the lot of humanity—would have found ample

employment in attempting to fathom the vast mystery, and in vainly asking what these strange things might mean.

"With how much of wonder, as scene succeeded scene, and creation followed creation,—as life sprang out of death, and death out of life,—must not that acute Intelligence have watched the course of the Divine Worker,—scornful of spirit and full of enmity, and yet aware, in the inner depths of his intellect, that what he dared insultingly to depreciate, he yet failed, in its ultimate end and purpose, adequately to comprehend! Standing in the presence of unsolved mystery, under the chill and withering shadow of that secret of the Lord which was not with him, how thoroughly must he not have seen, and with what bitter malignity felt, that the grasp of the Almighty was still upon him, and that in the ever-varying problem of creation, which, with all his powers, he failed to unlock, and which, as age succeeded age, remained an unsolved problem still, the Divine Master against whom he had rebelled, but from whose presence it was in vain to flee, emphatically spake to him, as in an after age to the patriarch Job, and, with the quiet dignity of the Infinite, challenged him either to do or to know! 'Shall he that contendeth with the Almighty instruct Him? He that reproveth God, let him answer. Knowest thou the ordinances of Heaven? or canst thou set the dominion thereof in the earth?" With what wild thoughts must that restless and unhappy spirit have wandered amid the tangled mazes of the old carboniferous forests! With what bitter mockeries must he have watched the fierce wars which raged in their sluggish waters, among ravenous creatures horrid with trenchant teeth, barbed sting, and sharp spine, and enveloped in glittering armour of plate and scale! And how, as generation after generation passed away, and ever and anon the ocean rolled where the land had been, or the land rose to possess the ancient seats of the ocean,—how, when looking back upon myriads of ages, and when calling up in memory what once had been, the features of earth seemed scarce more fixed to his view than the features of the sky in a day of dappled breeze-borne clouds,—how must he have felt, as he became conscious that the earth was fast ripening, and that, as its foundations became stable on the abyss, it was made by the Creator a home of higher and yet higher forms of existence,—how must he have felt, if, like some old augur looking into the inner mysteries of animal life, with their strange prophecies, the truth had at length burst upon him, that reasoning, accountable man was fast coming to the birth,—man, the moral agent,—man, the ultimate work and end of creation,—man, a creature in whom, as in the inferior animals, vitality was to be united to matter, but in whom also, as in no inferior animal, responsibility was to be united to vitality! How must expectancy have quickened,—how must solicitude have grown,—when, after the dynasty of the fish had been succeeded by the dynasty of the reptile, and that of the reptile by the dynasty of the sagacious mammal, a time had at length arrived when the earth had become fixed and stable, and the the proud waves of the ocean had been stayed,—when, after species and genera in both kingdoms had been increased tenfold beyond the precedent of any former age, the Creative Hand seemed to pause in its working, and the finished creation to demand its lord! Even at this late period, how strange may not the doubts and uncertainties have been that remained to darken the mind of the lost spirit! It was according to his experience,—stretched backwards to the first beginnings of organic vitality, and co-extensive, at a still earlier period, with God's spiritual universe,—that all *animals* should die,—that all *moral agents* should live. How, in this new creation,—this prodigy of creation, was to unite what never before had been united,—the nature of the animal that *die* with the standing and responsibilty of the moral agents that *live*,—how in this partaker of the double nature, was this discrepancy to be reconciled? How, in this matter, were the opposite claims of life and death to be adjusted, or the absolute *immortality*, which cannot admit of degrees, to be made to meet with and shade into the *mortality* which, let us extend the term of previous vitality as we

may, must for ever involve the antagonistic idea of final annihilation and the ceasing to be ?

"At length creation receives its deputed monarch. For, moulded by God's own finger, and in God's own likeness, man enters upon the scene, an exquisite creature, rich in native faculty, pregnant with the yet undeveloped seeds of all wisdom and knowledge, tender of heart and pure of spirit, formed to hold high communion with his Creator, and to breathe abroad his soul in sympathy over all that the Creator had made. And yet, left to the freedom of his own will, there is a weakness in the flesh that betrays his earthly lineage. It is into the dust of the ground that the living soul has been breathed. The son of the soil, who, like the inferior animals, his subjects, sleeps and wakes, and can feel thirst and hunger, and the weariness of toil, and the sweets of rest, and who comes under the general law, 'increase and multiply,' promulgated of old to them, stands less firmly than the immaterial spirits stood of old; and yet even they rebelled against Heaven, and fell. There awakes a grim hope in the sullen lord of the first revolt. Ages beyond tale or reckoning has this temple of creation been in building. Long have its mute prophecies in fishes and in creeping things, in bird and in beast, told of coming man, its final object and end. And now there needeth but one blow, and the whole edifice is destroyed, God's purposes marred and frustrated, and this new favourite of earth dashed back to the dust out of which he was created, and brought like the old extinct races, under the eternal law of death. Armed with the experience in evil of unsummed ages, the tempter plies his work ; nor is it to low or ignoble appetites that he appeals. It is to the newly-formed creature's thirst for knowledge ; it is to his love stronger than death. The wiles of the Old Serpent prevail; man falls prostrate before him; creation trembles; and then from amid the trees of the garden comes the voice of God. And lo ! in an enigma mysterious and dark, a new dispensation of prophecy begins. Victims bleed ; altars smoke ; the tabernacle arises amid the white tents of the desert ; the temple ascends all glorious on the heights of Mount Zion ; prophet after prophet declares his message. At length, in the fullness of time, the Messiah comes; and, in satisfying the law, and in fulfilling all righteousness, and in bringing life and immortality to light, abundantly shows forth that the terminal destiny of all creation had been of old fore-ordained, ere the foundations of the world,'to possess for its eternal lord and monarch, not primæval man, created in the image of God, but God, made manifest in the flesh, in the form of primæval man. But how breaks on the baffled Tempter the sublime revelation ? Wearily did he toil,—darkly did he devise, and take, in his great misery, deep counsel against the Almighty ; and yet all the while, while striving and resisting as an enemy, has he been wielded as a tool ; when, glaring aloof in his proud rebellion, the grasp of the Omnipotent has been upon him, and the Eternal Purposes have encompassed him, and he has been working out, all unwittingly, the fore-ordained decree. 'For our God maketh the wrath of the wicked to praise Him, and the remainder thereof doth He restrain.'"

Among the new Library books received this month by the *England*, is the *Eve of St. Mark*, an unexpectedly good Venetian romance, by Mr. Doubleday, hitherto known only as a writer on Population and other departments of political economy; the *Rose of Ashurst*, by Mrs. Marsh, the distinguished author of "Emilia Wyndham;" the *Rona Pass*, a three-volumed story, in which the author gives beautiful and truthful sketches of Scottish Highland scenery, and Highland social life and character; Mrs. Gaskell's *Memoir of Miss Bronte* (Currer Bell); Madden's Phantasmata; Spottiswoode's Eastern Russia ; the *North Western Passage*, by Dr. Armstrong, the officer in charge of the scientific department

of Maclure's expedition in the *Investigator;* the third and fourth volumes of the *Life of Sir Charles Napier.* Among other works published at home during the month, but not yet received here, is Colonel Lake's *Defence of Kars;* a new novel, the *Fortunes of Glencore,* by Charles Lever; a book entitled *Christianity in China,* by the distinguished French Missionary, M. L'Abbé Huc; *Christianity and our Era,* a work by Mr. Gilfillan, suggested by the attacks levelled against the Christian faith, by such men as Newman, Parker, Froude, Carlyle, and Emerson; and a curious American volume, in which the authorship of Junius is attributed to Lord Chatham.

We observe among the works preparing for publication, the following:—The Lectures of the great logician Sir William Hamilton; the Missionary Journals of Dr. Livingstone's Travels in Central Africa, which were to appear by the middle of May; A Memoir of Dr. Armstrong, the late Bishop of Graham's Town, by the Rev. T. Carter; and the "Professor," a posthumous novel, by Currer Bell.

Parliament has evinced a wise liberality in voting sums for the erection of new buildings for the South African Museum and the Public Library. The Library committee have, some years since, got a grant from the Government, of a building-site on the north-west angle of the Parade; and we hear it is proposed to build the new Museum at the lower end of the central avenue in the Botanic Gardens. We trust that neither the committee of the one institution, nor the trustees of the other, will be precipitate in fixing upon either of these positions as a site for the new edifices. It would be most desirable, as well for the public convenience, as for the advantage of both institutions, that they should, if possible, be included under one roof. Greater economy could so be practised in the expenditure of the parliamentary grants; and one building for the two institutions could be erected, on a larger scale and with better architectural decoration, than by keeping them separate and distinct from each other. It is to be hoped that an effort may be made to render the projected buildings an architectural ornament, which so few public buildings in Cape Town unfortunately are. We trust that the Library committee and the Museum trustees will confer seriously together on this important subject, and, by a judicious combination of the resources now at their disposal, succeed in procuring for the capital of the colony something really worthy of it. When the annual grant for the Botanical Gardens was under discussion in the Legislative Council, several documents were read, which could have been, by no means, satisfactory either to the Garden commissioners or to the public. The first of these was a letter from Sir William Hooker, in which he complains sadly of the very limited contributions of the Cape Flora forwarded to the Paris Exhibition. Speaking of Kew, he says: "I only wish that our noble garden had its 'Cape' department proportionably as well filled as it was forty years ago; but

that is far from being the case. Our old stock of Proteaceæ, Stapeliæ, Mesembryanthema, and Succulents, ingeneral, have died off, and there is no one to send a fresh supply." In his report on the Paris Exhibition, the same eminent botanist asks, "For what purpose are Botanical Gardens formed at great expense in our colonies, but to afford assistance by the knowledge and experience of their superintendents in such cases?" And in the Journal of Botany, for April, the Cape Botanic Garden is described as not having been in "any way beneficial to the country, and carrying on no correspondence or interchange of plants with the mother conntry, or with any other colonial gardens." It is spoken of, further, as "a mere lounge for the townspeople, attracted thither, twice a week, by the presence of a band of music." Now, we know that in all this there is a great deal of unfair misrepresentation; that the Botanical Garden of Cape Town is in a better state, and has done far more good, than people generally are aware of; and that the present Superintendent deserves more praise than he has ever yet got, for the energies and the talent shown by him in the discharge of his duties. But it is no wonder that the "Journal of Botany," in England, should know so little of the real condition of the Cape Botanic Garden, when, we venture to say, there are scarcely a dozen men in Cape Town who know anything of the real work and valuable improvements carried on by it. It is a public institution, supported to a large extent by the contributions of the public,—and the Commissioners, we submit, should do more than they have yet done to bring the details of their operations yearly before the public. It is true, an annual report is prepared and submitted to the Houses of Parliament; but that report is never, by any chance, seen anywhere beyond the tables of the said Houses. We trust that something further may be done to arouse public attention and public interest to the management of this most important institution; and that a little more energy may be thrown into the working of it altogether. We should not then hear more of such complaints as Hooker's, from Kew, that he knows not how to supply the Cape department of his noble gardens with even the commonest specimens of our Flora.

The intelligence and activity shown throughout the colony, for the past few months, in the formation of Literary Institutions, is an indication of progress which is very gratifying. At Cape Town, the Mechanics' Institute has been the means, this season, of providing a course of historical lectures of a very high character. Among the gentlemen who have already taken part in the course are Professor Dale, Mr. Watermeyer, Dean Douglas, and the Rev. Messrs. Currey and Cameron. And as lecturers on occasional subjects, we have had the Hon. Mr. Reitz and Dr. Tancred.

All of these lectures we have listened to with great pleasure, and have no hesitation in pronouncing them, in information, finished

style, and general ability, in every respect equal to the best lectures delivered at the best literary institutes at home. The large attendance of the public shows how much they have been appreciated, and what amount of good we may expect to follow from them.

At Graham's Town, there has been an equal, if not a still greater degree of activity, shown in connection with the literary and scientific institutions of that eastern capital. One society—the Literary, Scientific, and Medical—we observe has been established there, which we should much like to see imitated at the Cape. There have been several such in existence here; but they have all been allowed, in turn, to languish and die out It is not much to the credit of the capital of this important colony, that no society exists in which the scientific and practical men of South Africa can assemble, concentrate their information on matters of local interest and value, or discuss questions of importance to all of them, and to the colony at large. Such a society was the South African Institution, the list of whose long defunct committee still graces, or encumbers, the pages of our almanacs. Can nothing be done to revive that institution ?

In the country towns of Rondebosch, Swellendam, Beaufort (West), Alice, and King William's Town, we observe that literary institutions have been organised, and courses of lectures have been delivered. In connection with almost all of them, and as a nucleus, is what is usually called a Mutual Improvement Class, or Debating Society. We know that a prejudice exists against such classes, and we admit there is often great danger of their degenerating into mere spouting clubs. But judiciously managed and regulated, we know of no means whatever better suited to promote the self-improvement of young men. We have ourselves in Cape Town seen very great advantages derived from them; and we know that in older countries, some of these debating societies have become historical in their celebrity. It was at the Union Club of Cambridge that Macaulay first practised his brilliant rhetoric; and it was in the Speculative Society of Edinburgh that Brougham, Jeffrey, Lord John Russell, and many more, first made proof of their distinguished powers.

COMMERCIAL REVIEW.

A HEAVY succession of gales from east-north-east to west has occasioned serious loss to many vessels in Table Bay, of which eleven have been stranded. It is surmised that one or two may again be got off, and repaired; but in any case, the underwriters on ship and cargo will have reason to remember the gales of June, 1857. The damage done to boats has also been great; and irrespective of the losses incurred by their owners, the trade of the port is delayed by these accidents.

In every department connected with the bay, there seems great activity. Boats may be seen, in all directions, dragging for anchors and chains, parted during the gales, whilst cargo-boats are in great demand. We hope that the opponents of the Harbour of Refuge, or, as it should more properly be called, the Harbour of Commerce, will now see that the increasing trade of our port requires a security for the owners of vessels—which it does not possess—during the winter season

The districts of the Cape, Paarl, Stellenbosch, Malmesbury, Worcester, and Caledon are all richly productive, and contain about one fourth of the entire population of the colony. They are also, from their habits, large consumers of imported articles —such as tea, coffee, sugar, manufactures, metals, &c., &c. It is natural, then, that the only port available to them should have considerable commerce, which is on the eve of being immeasureably and immediately increased by the proposed introduction of railways. We look upon it that no measures could have given more satisfaction than the acts passed for the Harbour of Table Bay, Immigration, and Railways.

We ventured, in a former number, to predict much good to the colony by these measures; and we now say that we anticipate a considerable export of grain to foreign countries, in consequence of the facilities which our farmers will enjoy. The cheap transport of manure of every description to his door,—the cheap transport of his grain to market,—the opportunity afforded to him of learning the best time to dispose of his produce by the rapidity of communication,—the reduced price of his supplies,—and the advantage of skilled European agricultural labour, must benefit him to a considerable extent. The wine-farmer will be able to convey his produce to market immediately after it is pressed, and thus save the expense of large wine-stores, and of a great supply of fustage. Labour will enable him to plant out more vines, and the railway to save a lock-up of capital, by its immediate disposal. Every part of the colony will derive advantage by it; the Westerns by their greater production, —the Easterns by the cheaper and more abundant supply.

Business, at our end of the country, has been very much interfered with by the storms we have alluded to. There are two arrivals with large stocks of manufactures in this bay, whilst the naval department has received large additions to its supplies, direct from England. Several vessels in distress have put into Simon's Bay; and even Mossel Bay has given shelter to those which were outside, but to the eastward of Cape L'Agulhas. We hope that this fine winter harbour will become more known, and that its inhabitants will strive to induce vessels to enter their bay, by increased accommodation and supplies. In the winter season it is perfectly sheltered, and a most approachable port; and it decidedly requires only to be better known to be appreciated.

The price of Brazil coffee has advanced during the month from 72s. to 75s. ℔ 100lbs ,—a small quantity only imported ℔ *Stintfang;* Mauritius sugar may be quoted @ from 35s. to 42s. ℔ 100lbs., according to quality; white rice, 25s. to 27s. ℔ bag; brown rice, 23s.; caper tea continues firm @ 30s. to 32s. ℔ ten-catty box for direct, and 28s. 6d. for good indirect; coals have advanced to 55s., and stocks being low, will, in the absence of arrivals, rule higher; tobacco, 1s. 8d. to 1s. 9d. ℔ lb; spirits at former quotations.

There have been several arrivals from the coast, with colonial produce, the most part of which awaits an opportunity for shipment. Two or three schooners with guano are also reported, but we do not hear of sales of that article being effected. Hides may be quoted as before; wine £8 to £12 ℔ leaguer; brandy, £37 10s. ℔ leaguer; wheat, 40s @ 45s. ℔ muid; flour, 35s. ℔ 100lbs; oats, 18s. @ 20s. ℔ muid; barley, 22s. @ 25s. ℔ muid; meal, 45s. ℔ muid.

The freight market is decidedly firmer than in the month of May, and the commanders of ships, lately from England, objecting to return, in consequence of the number laid up at home, will tend to maintain it. The *Portia* has been taken up from Hondeklip Bay to Swansea, for the conveyance of copper ore @ £2 15s. ℔ ton. To London, shippers would gladly give 25s., and upwards, ℔ pipe; ⅝d. ℔ lb. for wool; 22s. 6d. to 25s. ℔ ton for copper ore; and for other produce in proportion. To the eastward there is a tendency to advance. The shipments of specie to the Frontier, added to a general drain into the country, have caused considerable tightness in the money market. It is asserted, also, that the Colonial Treasury has a large sum locked up in its coffers, which we trust to see distributed, before long, into its proper channels. The commencement of public works will facilitate this.

The Commercial Exchange Committee has had under consideration the heavy charges made by boatmen, and others interested in the disposal of warps and anchors to the vessels in the bay, during the late gales, and has, in consequence of the difficulty of the question, decided upon consulting the Attorney-General. The establishment of an impartial tribunal of commerce for the arbitrament of all cases connected with the mercantile interests of the colony, on a short notice, would be extremely beneficial, and would obviate much inconvenience that is at present felt. We could instance several cases where commanders of vessels have submitted to pay accounts sent in to them, which they conceived to be exorbitant and unjust, rather than be delayed, and have left left our ports with a determination to avoid them for the future. On the Continent and elsewhere, the tribunals of commerce are held in the highest respect, and their decisions are even referred to in the law courts.

MONTHLY REPORT ON THE SOUTH AFRICAN MUSEUM.

June 30, 1857.

I HAVE to report several valuable and interesting donations to the Museum during this month; and prominent among them, stands a magnificent male Ostrich, in very good plumage, shot on Mr. Barry's property, at Zoetendals Vley, and presented to the institution by the gallant commandant of the Caledon division, J. C. Linde, Esq. This fine bird will not be placed in the Museum for some time, not until the skin is properly dry, which is but a slow process during this season of the year.

Mr. Justice Watermeyer, just returned from his circuit, brought us the skin of a fine Gemsbok (*Oryx Capensis*), but unfortunately, on examination, it appears, that the whole skull, with the exception of the base of the horns, has been removed, and with it the skin of the mouth and lower jaw. This is a most unfortunate loss, for although the absence of the bones of the head might have been remedied, it is impossible to replace the skin which is missing. This is much to be regretted, as the addition of a handsome buck like this, to the collection, is much to be desired.

Whilst on this subject, I may mention that an attempt has been made to mount the skin of a Sassaybi (*Acronotus Lunatus*), received from Natal; but in consequence of the extreme tension to which the skin has been subjected in the process of drying, it has been found impossible to restore the natural proportions.

I therefore take this opportunity of begging such of my readers as may be intending to send specimens from the country of these much-desired animals, not to *stretch the skins in any way*, but simply leave them to dry *without pegging them down*, as is usually done: a *contracted* skin can always be *stretched*, but a *stretched* skin can never be *contracted*. I would also beg that the skull, with upper and lower portions, may be left in, and the bones of the legs, as far as the top of the hip or shoulder.

Mr. W. Cairncross has forwarded a small lot of choice birds from Swellendam. These will be noticed more fully when mounted. At present they will remain in store, until the warm weather releases the Taxidermist from larger specimens.

The ornithological collection has also been augmented by the addition of a fine specimen of the Wilde Kalkoen (*Ibis Calva*), presented by Mr. Grisbrook, M.L.A., from Graaff-Reinet. A specimen of this remarkable bird might, until very lately, have been seen alive in the Governor's private gardens, in company with the Emus, Ostrich, and other birds and animals that His Excellency's fondness for zoological study has induced him to collect about him. It has, however, unfortunately disappeared, and all the inquiries hitherto made to recover it have proved abortive. The bird was quite tame, and has probably strayed into some house or garden. Perhaps this notice may attract the attention of some one who can give some information concerning it.

Mrs. Döhne has presented a nice little collection of Natal Lepidoptera, which will not, however, be exhibited until the receipt of the glazed cabinet ordered from England. They comprise some very interesting gems, and among them are specimens of great brilliancy of colouring. I notice several old Indian friends, such as *Danais Plexippus*, *Vanessa Œnone*, and *V. Cynthia*, &c.

Some of them are found in this neighbourhood, but less brilliant in colour and smaller in size; the cosmopolitan *Cynthia Cardui* appears also, adding another locality to its already widely extended range. I believe this insect, may be found all over the globe. I have myself seen it in England, all over Europe, Turkey in Asia, the Greek Islands, Egypt, the shores of the Red Sea, and Ceylon; throughout America, from the mouth of the St. Lawrence to the Lake Huron, and from thence inland to New York. It is equally common at Mauritius, Madagascar, the Comoro Islands, and along the east coast of Africa, from 1½ deg. south to Cape Point!!

There is a common proverb that Scotchmen and crows are to be found all over the world. I am sure we may add, and the *Cynthia Cardui!*—As its specific name implies, this ubiquitous species feeds on thistles, which, I fear, we must also annex to the proverb. Its trivial English name likewise shows that it *possesses a wide range*. I am almost afraid to write it, lest some of your fair readers, with ruddy cheeks, should throw down the book and cry "Treason." It is called the "Painted Lady." There! I have done it, and am prepared to take the consequences from any lady that says I am alluding to her.

Among the Nocturnal Lepidoptera of this collection, there are several that are completely European in their appearance, and are known among collectors by the name of "*Pepper and Salt Moths.*" There is also a remarkably fine *Saturnia*, which might produce silk like that of the Indian species, from which the vestment of the Buddhist priesthood is manufactured. This is of so durable a nature, that the yellow robe frequently descends from the teacher to his pupil, through several generations.

While among insects, I must not omit to notice some curious balls made of clay and broken quartz, forwarded from Namaqualand by Mr. W. H. Auret. They were found "close to a spring, about three feet under ground," and are the nests of a *Cetonia*, each ball containing one full-grown beetle.

Our collection of native manufactures has been increased by the addition of a curious native wove blanket, presented by Mr. T. Hopley, who informs me that he obtained it "from a Griqua named Hans Waterboer, a nephew of the late Andries Waterboer, the well-known Griqua Kaptyn, who stated that he bought it in the country of Moselikatse, from a Kafir who got it from over the Quagga River."

E. L. Layard.

NOTES AND QUERIES.

QUERIES.

Is the fact of marine shells being found on the summit of Table Mountain, to be taken as demonstrating that the spot was at one period covered by the ocean, or can their presence be otherwise accounted for?

What is the origion or meaning of the expression "Dik-a-ton" (so pronounced,—the orthography I know nothing about), in common use here amongst the Dutch, for signifying the sum of 2s. 3d. sterling?

A. J. C.

Le Vaillant.—It is asserted by a writer in a late number of the *Household Words*, that Le Vaillant is a myth. Can any one prove to the contrary? Surely, if such a person existed, there must be some one living here who knew him. I solicit all kiud of information respecting him. Communications can be addressed to me at the Museum.

His not being here will account for the fact that many of the birds said to have been discovered by him cannot be found here now.

He states in his works he was here in 1783, '84, '85.

E. L. Layard.

REPLIES.

Bushmen and Sheep.—With regard to the question raised by your correspondent "Δ," although I am unable to define the capacity of a *Bushman's* stowage, if reasoning on such a case from analogy is admissible, I can show that the possibility of a man eating a sheep at one meal has been undeniably proved in India. When in Bengal, myself, many years ago, I often heard the subject discussed, but never the fact disputed; and the following narrative, taken from a Calcutta periodical work (A.D. 1834), will satisfy your readers that on one occasion, at all events, there was no deception, and could be no mistake. The incredulity of Mr. Abernethy, notwithstanding the vouchers shown to him, may be easily accounted for, if he was not told (and there is not a sign that he was told) that a Bengal grass-fed sheep will not weigh more than 20 or 25 lbs., without the bones and offal; whereas an English Southdown or Leicester averages from 70 to 100 lbs. It is clear enough that Mr. Abernethy was right in saying that "the human stomach has not the capacity to receive and contain so large an amount of animal food" as that; though a wretch, ravenous from long fasting, and perhaps disease, may be able to dispose of 20 or 25 lbs of flesh, with the addition of a bottle of brandy afterwards, to "make things pleasant."

The sheep which the Bushmen are said singly to finish at one meal would be the fat-tailed species, and would weigh probably from 30 to 40 lbs., without the offal.

Yours, &c., T. B. B.

"Although the following fact, which was witnessed by myself and those whose names are given, occurred so far back as December, 1807, it may, nevertheless, serve to promote inquiry as to the extraordinary structure of the man's stomach, by which it was enabled to contain so large a quantity of animal food.

"On a shooting excursion from Futtehghur, about the latter end of the month of December, 1807, we pitched our tents at a village called Bhurtpoor. It was the second or third day after our arrival there, that the Zemindar, a keen old sportsman, and well known in that neighbourhood, by name Munsook Ram, and who resided in the village, came and said if we wished to see a Fakeer eat a live sheep, that he had just arrived and was willing to commence the repast. One and all agreed; an ordinary sized grass sheep was procured, and the man sent for. The sheep had its two fore legs tied at the postern, and the two hind legs in the same manner. It was then laid on its side, and the man squatted himself on his hams, about fifteen yards distant.

"No lapse of years can totally efface the impression I still vividly retain of the horrid cast of features exhibited by this monster as he contemplated the animal on the ground, and the repast he was about to enjoy.

"After sitting in this manner about five or ten minntes. I observed him drawing his feet closer under his hams, when suddenly, with a fiendish grin, and incredible celerity, he bounded towards the animal, and seizing its fore legs with bis left band, and its hind legs with his right, he, without apparcutly any great effort, tore open the belly with his teeth, and eagerly wrenched out the heart and liver, which were instantly devoured; and then removing the intestines, and holding the sheep on its back, witb its feet upwards, he delved its head into the carcase, and I distinctly saw him gulping the blood from the cavity.

"If I was struck with the horrid cast of features of this monster in the first instance, what were my feelings now, when, withdrawing his head from the carcase, his face presented itself, dripping in the blood, and the matted hair trickling with blood, coursing down his forehead over his already ensanguined face? It was too much for two of the party, and they retired for a moment to the tent; but as I was determined (as well as A. R.) to see that no imposition or deception should be practised, and having alrcady breakfasted, and the worst part of tbe exhibition being over, I ordered out my hookah, and deliberately sat down to see its terminatiou.

"He then proceeded to separate the hide from the carcass, with his teeth, in which operation he was constantly spitting off the wool that became attached to his lips, and which, in spite of the disgusting nature of the scene, as the wool adhered to the moist blood on his cheeks, gave him a most grotesque and ludicrous appearance. The ribs were next carefully separated, and picked with his teeth as clean as it were possible for a knife to scrape them. The shoulders then underwent the same process, and lastly, the legs, when my friends observing that the elephants were ready for our daily sport, we mounted them, leaving the Fakeer with nothing but the hide, intestines, and bones. All and every other part of the sheep he had entirely devoured. Just at this time, however, Munsook came up to us, and said he had often seen him make similar repasts; but at its conclusion, when procurable, he always required a draught of brandy, We accordingly sent for a bottle, from which (a quart bottle) certainly not more than two wine glasses had been expended the previous evening, when tbe wretch held up both bis hands, joined, witb the palms upwards, and the servant pouring the contents of the bottle of brandy into them, he drank the whole off at one draught!

"Some four or five years afterwards, one of the party went to England, on furlougb, and dining, one evening, at the house of his brother-in-law, the late Mr. Abernethy happened to be present, and tbe host addressing him, said, 'Mr. Aberuethy, this gentleman, wben in India, saw a native eat a whole sheep at one meal.' Mr. A. drew up in his chair, stared; but at lengtb said, 'Sir, that is impossible; the human stomach has not capacity to receive and contain so large a quantity of animal food.' Wbetber it had been previously agreed to introduce the subject or not, I don't recollect, but the gentleman having the certificate we gave each other, at the time, in his pocket, he handed it across the table to Mr. Abernethy, who read it, and returned it, saying, 'Sir, I don't doubt your word, or that of any of tbe gentlemen who have signed tbat paper; but this I do say, I would not believe it were I to see it myself.' Tbe company were silent; but tbe fact is, Mr. Editor, as I have related it.

"About 10 or 12 years ago, the four who had witnessed the repast, happened to meet, by the merest chance, at the same station and table, when, of course, the circumstance was adverted to, and the question asked if each had preserved his certificate given at the time, and, I believe, the general reply was in the negative. In order, tberefore, to perpetuate the fact, the following was drawn up, and one copy given to each, after signature. The following is a copy of that now in my possession; and one of the party is

now, I believe, at Barrackpore, who can corroborate the whole of this 'ower true tale.'

(Copy.)

"'We, the undersigned, do solemnly declare that we saw, in the month of December, 1807, a Fakeer devour a live sheep, with the exception of the hide, bones and bowels; and that, after his repast, he drank off nearly a full bottle of brandy at one draught. In proof of this, we annex our signatures.

A. Richards (now Colonel).
W. C. Faithful (now Colonel).
R. C. Andree (now Colonel).
P. M. Hay (now Lieutenant-Colonel).'

"I will now, Mr. Editor, endeavour to give you a faint idea of the Fakeer's person. In stature, he was five feet two or three inches, extremely emaciated, with lank, filthy hair, a leaden lack-lustre eye, except in the act of seizing his prey, when it kindled up like that of a tiger when making his spring; the abdomen so shrunk or collapsed that, with the slightest pressure, I am sure the navel might be made to touch the backbone. He walked with a dogged, downcast look; and Munsook told us, it would be as well to take no notice of him if we should happen to meet him outside the village, as his disposition was so vindictive, that if a Pariah dog continued to bark at him for any length of time, he never slept till he had seized and devoured it.

"In conclusion, I have merely to state that I have not advanced so much proof with a view merely to establish the fact; for I have no doubt there are numerous living witnesses ready to attest it, who were in the neighbourhood of Futtehghar some 25 or 30 years ago, where there then existed five or six of these monsters, which, however, are now, I believe, rarely to be met with,—but for the purpose of placing on record the capability of the human stomach to contain such a mass of animal food and liquid, too, in opposition to the opinion of one of the first surgeons in Europe."

In reply to "Δ," *Frazer's Magazine*, for April, 1857 (p. 483), informs us that "an Esquimaux, according to Sir John Ross, consumes twenty pounds of flesh and oil daily. Captain Cochrane states that a good calf, weighing about 200 lbs., may serve four or five 'Jakuti' for a single meal. He has repeatedly seen a Jakut or Tongonse (some variety of the human species, no doubt) devour forty pounds of meat a day, and once witnessed three of them consume a reindeer at one meal."

"Ten of our Hottentots," says Barrow, "ate a middling sized ox, all but the two hind legs, in three days;" and he mentions that "three Bosjesmans, who had a sheep given them about five in the evening, had entirely eaten it by noon of the next day. They continued to eat all night without sleep, and without interruption, till they had finished the whole animal." Ω

An Answer to one of "H's" Questions.—The pane of glass alluded to by "H" was long ago given to the Museum, but its removal has been deferred from an unwillingness to run the risk of destroying such an interesting relic.

Now, however, enlightened by "H's" house-breaking experience, the attempt shall be made. E. L. Layard.

P. S.—Can "H" furnish us with the pattern of a handy *Jemmy?*

GENERAL SUMMARY.

Colonial.—The proceedings of Parliament during the past month have excited an unusual degree of interest, its close being marked by the unexpected resignation of all the Members of Council for the Eastern Province, with the exception of Sir A. Stockenstrom, Bt., who is in England. This event has not, however, prevented the passing of the Railway Bill; a motion for its postponement until a future Session was made by Mr. Godlonton, and on being lost, he handed to the Acting President their resignation, and their reasons for taking that step.

The Parliament was prorogued by His Excellency, in person, on the 29th ult. to the 21st of October next.

New writs have been issued for the six vacant seats in the Legislative Council.

Table Bay has been visited during the past month by a series of gales, which continued at intervals from the 6th to the 22nd inst., occasioning a loss of property, which in the annals of Table Bay disasters, has rarely had a parallel. Fortunately, owing to the active exertions made with the life-boat, there was no loss of life. During the gales, the following vessels were driven on shore, viz:—Barks. *Rory Brown*, *Jessie McFarlan*, *Christabel*, *William James*, and *Ellen Rawson*. Brig, *Isabella*. Schooners. *Newport*, *Isabella*, *Gitana*, and *Helena*, and Cutter *Fox*. Of these the *Jessie McFarlan* is the only one that has been got off. Numbers of cargo-boats, and a water tank, were also driven on shore, while the amount paid for anchors and cables sent off during the gales was estimated at £10,000.

Free State.—The expected collision between the Free State and the Trans-Vaal has happily been averted. Boshof's army being drawn up ready for an attack, a flag of truce was sent by Pretorius, and terms ultimately agreed upon, to the effect that he should give up all claim to the Free State, conduct himself peaceably for the future, and deliver up all rebels who may have fled to his country.

Natal.—By the last advices the Legislative Council had adjourned for a fortnight, a serious difficulty having arisen between the Government and the Council, on the subject of the Estimates. Intelligence had been received from England that several large English capitalists were about embarking in the growth of sugar, coffee, and other colonial products.

European.—The R. M. St. *England*, with dates to the 8th May, arrived on the 28th ult., but bringing no news of any importance. The Duchess of Gloucester is dead. Mr. Evelyn Denison had been elected Speaker of the House of Commons. Lord Elgin, embarked on the 1st of May, for China. His private secretary is Mr. Lawrence Oliphant, a native of the Cape, who has already become distinguished by his travels.

The Wool Sales had taken place. The average fall was 2d. a lb., but on Cape Wools, only 1d. Cape Wine was still maintaining high rates. White Wine fetching £21 per pipe.

MILITARY INTELLIGENCE.

Arrivals from England.—Major Cox, Lieuts. Stewart and Everett, 13th Lt. Infantry, Lieut. Campbell, R.E., and Purveyor's Clerk, Callaghan.

From the Frontier.—Surgeon Bindon, 6th Royals, and Lieut. Palmer, C.M.R.

Departures for England.—Lt.-Col. the Hon'ble G. Devereux, R.A., Capt. Field, R.A., Lieut. Palmer, C.M.R.

To Algoa Bay.—Lieut.-Col. Tinely, and Lieut. Harvey, C.M.R., Major Cox, Capt. Tyler, and Lieuts. Stewart and Everett, 13th Lt. Infantry, Rev. W. Sykes, Chaplain to the Forces. Purveyor's Clerks, Treadwell, Monk, and Callaghan.

To East London,—Lieut.-Col. Dill, R.E., Major James, 2nd Royals, Assist. Surgeon Bonnyman, 89th, and Lieut. Cubitt, 60th Rifles.

On the arrival of the 3rd Batt. of the Rifle Brigade to relieve the 89th Regt., ordered to New Zealand, the head-quarters with the band and about 300 men will remain in Cape Town, and the remainder of the regiment will proceed to East London.

Lieut. Harvey, C.M.R., with 50 men of the Hottentot Mounted Levy raised here, embarked for Algoa Bay in H.M. St. *Penelope.*

Lieut. Campbell, and 30 men R.E., arrived from England in H. M. St. *Transit,* and re-embarked for Natal in H.M. St. *Hermes.*

Civil Appointments, &c.

June 1.—Mr. Percy Vigors to be chief clerk in the Colonial Office, in the room of Mr. J. E. Montagu, resigned.

June 15.—Mr. W. A. Wentzel, jun., to practise as a Notary Public.

June 9.—The Chevalier Alfredo Duprat, K.T.S., took the oath of office before His Excellency the Governor as H. M. F. M. Commissioner, in the British and Portuguese Mixed Commission.

June 22.—William Daly, Esq., to be the Justice of the Peace for holding a court periodically at St. Helena Bay. Gustavus Chabaud, Esq., to be Vice-Consul of France at Port Elizabeth, and J. Albertus, Esq., at Simon's Town.

June 24.—J. J. Pronk, Esq., to be District Surgeon of Riversdale.

Meteorological Register for May, 1857.

Deduced from five Observations daily, Sundays excepted.

Hours of observation, 1h. 34m., 5h. 34m., 9h. 34m., 17h. 34m., 21h. 34m., Cape mean time.—Height above the sea level, 37 feet.

Day.	Barometer corrected at 32° Fahrt.	Thermometer		Humidity of Air. Saturation = 100	Self-registering Thermom		WIND.		Rain.	Cloudy sky in tenths.
		Dry.	Wet		Max.	Min.	Force.	Direction.		
	Inch.	°	°		°	°			Inch.	
1	30·170	66·68	61·08	74·2	79·0	52·0	1 3	SbE		1·4
2	30·027	71·86	58·10	43·2	86·2	54·4	1·1	W		0·9
3					86·2	56·0				
4	29·857	63·70	57·24	70·8	76·2	55·5	3·2	NWbW		6·2
5	29·875	58·66	56·74	89 2	64·5	53·5	5 2	NNW	0.180	7·6
6	29·908	58·30	56·34	88·4	60·2	53·6	4·4	NNW	0·515	9·2
7	30·174	56·96	53·90	82·4	64·0	45·2	0·5	SbW		4·5
8	30·136	58·16	54·04	77·6	66·2	45·0	0·5	SWbW		2·2
9	30·042	60·70	58·36	87·6	69·0	52·0	1·2	S	0·005	4·2
10					63·8	50·9			[dew]	
11	29·957	62·98	59·16	80·4	70·0	56·4	1·5	WSW		6·6
12	30·024	58·24	55·18	82·6	59·0	51·8	1·2	NWbN	0·200	7·2
13	30·140	56·22	52·22	77 2	62·0	49·0	0·8	NWbW		6·6
14	30·099	55·72	53·10	84·2	58·8	48·6	0·8	NW		6 2
15	30·060	57·54	55·16	86 4	62 5	50·0	1·5	NW		4·9
16	30·076	58·44	56·92	91·0	68·2	53·0	1·2	NWbN		10·0
17					60·5	52·5			0·250	
18	30·130	57·18	55·14	88·2	59·8	52·7	2 9	SWbS	0·860	8·6
19	30·259	58·70	53·96	73 2	62·0	53·0	4·6	S	0·102	1.5
20	30·172	59·78	55·66	77·8	68·7	47·8	0·3	SSW		0·8
21	30·140	61·24	56·68	76 6	70·5	48·5	0·4	SWbS		1·2
22	30·090	62·22	56·66	72·6	74·0	51·0	0·8	NW		0·5
23	30·069	57·16	55·00	87·6	66·5	47·4	0·8	NNW		4·0
24					63·3	46·8				
25	30·090	57·48	55·04	86·2	64·3	50·2	3·2	WNW	0·205	7 0
26	30·034	56·76	53·86	83·6	62·5	47·5	1·3	SWbW		4·3
27	30 012	56·92	54·18	84·0	60·8	53·0	3·8	NWbW	0·150	7·6
28	30·161	56·16	53·10	82·2	61·0	49·2	0·9	WbN	0·026	6·4
29	30·135	54·72	51·80	82·6	61·6	45·0	0.9	NW	0·008	3·9
30	30·135	54·04	52·14	88·4	59·3	52·9	1·8	NW		9·6
31					57·8	44·0			0·270	
Mean.	30 0781	59.097	55·41	80·70	66·08	50·59	1·77		2·771	

MEAN RESULTS FOR THE SEVERAL HOURS OF OBSERVATION.

	A. M. h. m. 5·34	A. M. h. m. 9·34	P. M. h. m. 1·34	P. M. h. m. 5·34	P. M. h. m. 9·34	highest	lowest
Barometer, cor. to 32°, inches	30·080	30·104	30·055	30·063	30·089	30·294	29·758
Thermometer, dry bulb, deg.	53.71	59·52	65·32	60 00	56·92	85·9	46·8
„ wet bulb, deg.	51·56	56·09	56·77	56·45	54·21	67·8	45 8
Humidity of the air, per cent.	87 04	81·54	69·50	80·77	84·65	97·0	28·0

CAPE MONTHLY MAGAZINE.

ROADS AND ROAD-MAKING.

BY AN AMATEUR.

PART I.

THE practice of road-making, though justly regarded as of the first importance to society, and as marking very prominently the measure of civilisation, improvement, wealth, and refinement at which a nation has arrived, has nevertheless, in the countries of modern Europe, most distinguished in these respects, been but partially attended to, and anything but perfect.

The main roads in England, for the last forty years, have been a just theme of praise by all travellers; but the nation, or any important part of it, did not, until a late period discover that there was a need for good parish roads; and, among the early recollections of our boyhood, when we, like Robert Bloomfield, could in spirit, at least, exclaim,

> "Welcome green headland, firm beneath my feet,
> Welcome the friendly bank's refreshing seat,"

those much dreaded parish roads were an annual cause of anxiety to every farmer who required to use them in the winter; nor were they much better in summer, except in the absence of water. In Ireland, the cross-roads were in a very bad state to a much later period; and although main and cross-roads were carried through extensive parts of that country, by the late Mr. Nimmo, we have the assurance of Martin Doyle, a gentleman of unquestionable authority on all rural affairs in that country, that the cross-roads did not receive that attention to which they were entitled; and it is probable that no extensive improvements were made until funds were placed at the disposal of the Board of Public Works for the employment of the people during the famine.

The object of this paper is to notice a few remarks by Sir John Burgoyne, Bart., from whom we shall learn that in France, so celebrated for the minutiæ of refinement in detail, and where the expense of draught of merchandise over the high

roads, exclusive of passenger carriages, is estimated at from nineteen to twenty millions sterling per annum, it is only very recently that the roads have had that attention which, from their importance as national works, they are entitled to.

The remarks which we wish to bring a little more into public notice form the latter part of the article on roads, in the *Aide Mémoire to the Military Sciences*, pp. 329-348. The first part of the article, on the tracing and construction of roads, is from the pen of Mr. Law, and is followed by Sir John Burgoyne's remarks on the maintenance of macadamized roads, the watering of roads, on macadamized roadways in large populous cities, and on rolling new-made roads.

We propose to discuss each part separately. We notice road-mending in preference to road-making, because it is a branch of the practice requiring great skill and vigilant attention on the part of the officers (usually moving in a very subordinate position) to whom it is entrusted.

When roads have to be made, involving an outlay of several thousand pounds, figuring largely in a public estimate, their importance is thought sufficient to demand the superintendence of an engineer, whose professional character is such as to give a reasonable assurance that the work will be well done, and with due attention to economy; and the character of his subordinates for skill is of much less consequence to the public, as they merely carry out his orders in the execution of his plans. But in repairing roads, the case is very different; much greater skill, judgment, and vigilance are required on the part of the overseers, as scarcely any two cases of repairs require to be treated in the same manner; and it is particularly true in road economy, that prevention is better than cure. The too general practice of placing men in charge of roads who really understand little or nothing about what they have to do, or how to do it, has almost passed into a proverb among road-makers; and the general practice of employing men by the day, instead of working by the piece, generates and continues careless and indolent habits on the part of the men. Complaints of this kind, indeed, have been pretty general in the United Kingdom, and, as we may infer from Sir John Burgoyne's remarks, in France too; and if so, how much greater is the probability, in a colony where labourers are few in number and less skilful, that men will sometimes, from necessity, be put in charge of roads, who have no knowledge of the economy and practical detail of road management.

The object of Sir John Burgoyne is to show that, by the introduction of railways, road-making has not received that

attention and improvement to which it is entitled, and, in fact, had made little or no progress in improvement for fifteen or twenty years previous to the time at which he wrote; and that by the introduction of macadamized roads and streets, and with the minute attention lately paid to them in France, and by some further suggestions of his own, a very great saving would result to the public, and that a great outlay in cart-hire paid for the conveyance of a large mass of useless rubbish on to a road, would be paid for manual labour in the preparation of the superior materials, and the preservation of the road, would, to a great extent employ the poorer classes at the seasons of the year when other descriptions of labour are scarce. This view of the subject dovetails in so nicely with the wants of the Cape of Good Hope, that if the writer had spent his whole life in the colony, he could not have hit upon a plan more beneficial to the development of the resources of our country, or more directly applicable to its wants, than that of creating work to occupy a labouring class of people where farm labour affords but a periodical supply. His remarks are so brief and replete with meaning that they scarcely admit of abridgement. But let him speak for himself. On the maintenance of macadamized roads, he says:—

"The general extension of railways over all the leading lines of communication throughout the kingdom has greatly tended to withdraw the interest of the public from the consideration that had previously been given to the construction and maintenance of the ordinary roads. A sudden check was put on the progress of improvement, and the systems for these important operations remain where they were some fifteen or twenty years ago, when they had by no means arrived at perfection. It is not assumed that any novelty is to be introduced into the old principles for the maintenance of macadamized roads, but the extent to which it is considered that they ought to be carried out is not recognised, or at least practised. The chief features of proposed improvements are—first, the keeping the road *perfectly clear* of dust, dirt, or of any unconnected matter over the coat of consolidated broken stones; and, second, minute repairs to the surface, in small patches, immediately on the appearance of any want of form or substance.

"Previous to entering into the question of maintaining a road we ought to suppose it to be, in the first instance, in a proper state.

"There are two very important requisites for a road, without which it ought not to be considered, if a new road, as completed, or, if an old one, as efficient; one of which is generally much neglected, and the other entirely. The one is thorough drainage, the other, the consolidation, as part of the work, of any great mass of new laid stones."

There follows here, at some length, considerable details on

drainage, and the bad consequences resulting from neglect of it; but as they contain nothing new on the subject, and as drainage is such a vital principle in road-making, without which nothing can be called a road, as well as in the economy of roads after they are made, and as it is usually limited to keeping the water courses clear, we shall pass on to the second part of our subject, viz., the consolidation of new laid stone, merely remarking, by the way, that officers who are not sufficiently impressed with a sense of the necessity of good drainage, will not only not make a good road,—they will not even preserve an indifferent one from destruction.

"With regard to the second requisite, namely, the consolidation of the broken stone on new roads (or in cases of extensive repairs), before they are given up for the general traffic, no road ought to be considered to be finished until thoroughly rolled, that is, to a degree that will admit of horses in draught trotting over it without much extra exertion.

"As this is seldom, if ever, attended to, the propriety of its adoption requires some distinct explanation and arguments, which will be found at the end of this article."

His illustrations of this part of the subject will be afterwards introduced.

"The greatest advantage of maintaining roads in good condition, as a measure of *economy*, has frequently been adverted to, but cannot be too often repeated or too strongly enforced, particularly since it is little attended to in practice.

"Without going into the question minutely, perhaps the following, as a single illustration, will not be considered overstrained.

"Suppose the work of every horse on any given road be calculated at twenty miles' daily journey upon it, and that the services required be regulated by the number of horses supplied, it is probable that the difference in the state of a road that would enable four horses instead of five to do any given amount of work would not be so great as most persons might imagine.

"The calculation may be made in various different ways; distances traversed, or loads conveyed, or rates of speed, may be varied according to the goodness or defects of the road; the supposed *result*, however, by any mode of reasoning is, that four-fifths the amount of animal labour should be able to do the work in one case that would require one fifth more in the other.

"Supposing the number of horses employed to be equal to an average of eighty daily, over twenty miles of the inferior road, then sixteen horses (or one fifth) might be spared, if the road were improved to the condition contemplated on the above calculation.

"Suppose, also, the value of each horse to be estimated at £45 per annum for his purchase, feeding, care, harness, &c., there would be an available amount of £680 per annum for the improve-

ment and maintenance of this twenty miles of road in its most perfect state, or £34 per mile.

"If it could be shown that an increased expenditure on the road, not exceeding that amount, would have the effect of placing and maintaining it in a superior condition, it must decidedly be true policy that it should be incurred, not only on account of the one element of reduction of animal labour, but on many others on which it is not easy to put a money value,—such as wear and tear of carriages and harness; greater degree of lightness and ease that may be given to the carriages; saving of time by increased degrees of speed that would be adopted for traffic of all kinds, but particularly for passengers; greater freedom from mud or dust; reduction of cruelty to animals, which by no process can be so great on a good as on a bad road; improved business in the district, and increased traffic that would be brought on the road by the additional facilities and comfort it afforded, with very many others."

It is also remarked, in a foot-note, that the above supposition applies to carriages drawn by more than one horse, but in the case of one-horse carriages, an extra horse cart and driver, &c., would be required for the inferior condition of road; and that "this argument has reference to the public generally, and not to the parties who pay for the road."

Some remarks then follow on the raising of funds, and we learn that the writer does not view the turnpike system in a very favourable light. He goes on to remark that

"A road in superior condition is assumed to be one that has always a hard and even surface, with curvature just sufficient for the water to run off, without even small hollows in which it will lodge, without mud in wet weather, or dust in dry, and at no time with extensive patches of the usual sized broken stone newly laid upon it.

"A road *must* have at least three or four inches of stoning upon it, or, if not very firm, wheels will in parts cut down to the subsoil, and it will be impassable.

"As the stone is worn down to dust or mud, it *must* be removed in equal quantities.

"This is all that is absolutely necessary to enable carriages to make use of it; and by an inference too general, it seems to be considered that the cheapest mode of maintaining a road in a condition merely passable, is to do no more than lay down stone along it just before it arrives at its minimum thickness.

"It seems also to be considered that whatever improvement is made beyond that state, in the goodness of the road, as a measure of convenience, or for the economy of the working power on it, must be at the sacrifice of some direct increase of expense upon the road.

"There is, however, great reason to believe that by a proper

system, the greatest improvements might be made at *very little, if any, increased outlay.*

"On a thoroughly good road, the wear is very gradual, and very *slow*,—the carriages work indiscriminately over every part; but such a condition must be narrowly watched, for if left to itself, slight inequalities are formed, each of which tends to a more rapid wear of the road; and in proportion to the length of time that these are allowed to continue and increase, and the less frequent and more extensive are the repairs, by so much will be the injury done by each carriage; thus, in the first case, where the traffic of one week may do, in a given distance, ten shillings' worth of injury, in the worst of the latter it may do damage to the value of twelve or fifteen; if, therefore, it can be maintained at once in the better condition at the higher rate, though the ultimate expense is the same, yet we have the good road instead of the bad.

"Independent of the constant perfect efficiency of the drainage, and that a good form of cross section be preserved at every application on the surface, there are two leading operations to be regulated,—namely, the removal of the produce of the wear, in the shape of dust or mud, and the application of fresh material, to replace the loss."

Then follows a description of the mode of removing the dust and mud which, when properly and attentively performed, should be done with a broom, not with a scraper; but the climate of the Cape of Good Hope, at least the western portion of it, is such that very little labour in this respect is required. The south-east wind is such a magnificent broom in summer, and the sun such an admirable drier, for the whole year through, that on macadamized roads, perfectly formed, the expense of removing dust and mud may be left out of the calculation without any material injury; and thus a macadamized road is, by the absence of these items of expense, rendered more desirable from its comfort and cheapness. Not indeed that we are without mud in Cape Town: we have sufficient to satisfy the lovers of it from all parts of the world, but this arises from a condition of absolute neglect, or a degraded state of road very slightly removed from it, and is beneath the criticism of a road economist altogether. Sir John Burgoyne, accordingly, commences his remarks when this state of neglect is supposed to cease.

"The manner of supplying the materials for preserving the necessary thickness for the crust of a road will admit of great variation from the worst system, which is that of waiting till the surface has lost its shape, is covered with mud and pools of water, to which a thick covering of stone, broken to the usual dimensions, is applied over extensive distances, and then left to be worn down by the carriages that casually pass it.

"This necessarily produces very heavy draught, chance of injury to horses' feet, a very slow formation and consolidation, a great displacement of materials, and extra grinding and wear and tear; and thus the road is rendered almost unfit for transit by the very operation that is called its repair, and ultimately remains a mis-shapen fixing of not half the quantity laid down.

"On the proposed system, improvements are introduced by more frequent patching in smaller quantities at a time, up to that which may be deemed the most perfect, namely, a constant watching, and the application of *very small particles of stone, broken fine,* carefully supplied to the small hollows, as they shall successively be formed, and to places where the shape or strength shall be deficient, these parts being loosened with a pick, and the fresh material rammed down into them, and attended to carefully till finally consolidated.

"It is very evident that instead of all the grinding and crushing of the material which attends the passage of wheels over the soft rough road, the friction and consequent wear on that which is perfectly even and hard must be most trifling.

"Under the system here recommended as the best, there will be, no doubt, some additional manual labour requisite *on the road,* but at the same time a most decided saving of *material,* and in the carriage of it; and in cases of tolerably frequented roads, or when material is distant, and therefore costly, perhaps it may be said, generally, the saving on that item will be greater than the extra expenditure on the other; thus obtaining an *absolute reduction of outlay* to procure the perfect road, and, what is of advantage in almost every country where it can be effected without extra expense, increased work for the labouring population of the vicinities; that is, the substitution of manual labour for the employment of material and animals. It may almost be asserted that, under a thorough good system, the better the road is the less will be the outlay upon it.

"Many of the above remarks have been suggested by some very interesting papers, written by Mons. L. Dumas and other French engineers of the *Corps des Ponts et Chaussées.* They state many facts which establish in a great degree the gradual improvement of system and the soundness of these principles."

But as the remarks made by the author on these papers of the French engineers are of considerable length, and would require to be copied almost *verbatim*, we must reserve them for another paper, and conclude with a few remarks of our own.

It would be wrong to infer, because Sir John Burgoyne states in his first paragraph that the introduction of railroads has withdrawn public attention from common roads, that common roads are the less necessary, or that they will be at all lessened in importance by the introduction of railroads.

In a highly civilised country like England, with such a vast population, immense agricultural, manufacturing, and commercial resources, railways ramify into every nook and corner of the land, and spread over the whole country like a network, and common roads have become secondary to railroads, but they have not diminished in number. In a country with such a geological formation as the Cape colony, an extensive system of railroads cannot exist, and for various natural reasons they will be confined principally to the course and neighbourhood of the rivers, from which they will probably never diverge but for short distances. But in order to allow society to derive the benefits from a railroad which it is intended to confer, common roads will be increased immensely to accommodate that increased speed in transit which is always generated by the contiguity of a railroad, which gives increased motion and dispatch to everything within its sphere of influence; and although these roads would not require to be macadamized roads, they would at least require to be such as horses could trot over with a load. For this purpose, indeed, many of the natural roads of the country, with a slight improvement, are sufficient.

But in the neighbourhood of large towns the case is different, and we advocate a high state of excellence for roads in such positions, and know of no kind of public works in which society is so much interested as its public roads. All participate in their goodness or suffer from their badness,—from the pauper to the prelate, and from the foot passenger to the four-in-hand. And if we cannot attribute to them a moral influence, they certainly have a high social one. The farms beside roads in a high state of excellence and carefully kept, are always better cultivated and the homesteads in better condition; drainage is more closely attended to; and fences are more vigilantly looked after. The cottages have an air of comfort unseen in other places, and all descriptions of property have a higher value; for public opinion is outraged by negligent and slovenly management in the vicinity of a neatly kept road; and when we look back on the past, we do wonder what evil genius could possibly have prompted us for years to have endured so costly, uncleanly, and uncomfortable a state of roads and streets, when probably for the same cost we might have had them macadamized, clean, and comfortable; and the money which has been laid out in animal labour in the support of a few miserable, overworked, and badly fed scarecrow horses, might have been spent in manual labour in the support of an increasing and rising population of European workmen, for want of whom the colony is

checked in its progress, and for the introduction of whom large sums of public money are frequently paid. It is notorious that many of the immigrant labourers of the Cape have been driven out of the colony to seek another home, from want of suitable employment. The causes of all this, we shall endeavour to explain in another paper.

HISTORICAL SKETCHES OF SOUTH AFRICA.*

No. 2.

DISCOVERY OF THE CAPE.

About the year 1300, the trade of the east had been for many centuries in the hands of the Venetians. They accumulated incalculable wealth, and rendered their capital the Alexandria of Europe. Venice continued to maintain that high position until the Portuguese discovered the passage to India by the Cape of Good Hope. This important discovery proved fatal to that republic, whose resources and power had at that period increased to such extent, that it could defend itself against the Emperor, the Pope, the King of France and Arragon, and almost every potentate of Europe.

Thus stood the state of trade in Europe when the mysterious power of the magnet was discovered. The use of it at first remained dormant; it was looked upon as a curious instrument which might be available in long sea voyages, at that time scarcely contemplated. The Portuguese were the first Europeans who planned these exploring expeditions; but as far as history shows, Columbus was one of the first who had courage and daring to depart from the continent and venture on the dangerous ocean, trusting to the certainty of a single magnetic needle.

The revolutions which had disturbed the western parts of Europe had ceased in the fifteenth century, and the several

* Our respected contributor informs us, that his object in these sketches is to communicate such historical information as, either from research or personal observation and experience, has fallen under his notice. To do so in plain language and brief narratives, he considers to be the readiest mode of describing the several events as they appear on record or in the pages of history, adding such remarks as from time to time may appear necessary to attract attention to the subject, and illustrate it. The whole will therefore be an inferior kind of historical composition, a collection of facts, to serve as material of history, rather than aspiring to a history of the colony itself; and he trusts that, as such, his narratives will be found faithful, distinct, and, as much as in his power, complete.—Eds.

powers had time to repair their commerce. John the First was King of Portugal, and his son, Prince Henry, was jealous of the riches and splendour of the Venetians, and started a plan to deprive them of these advantages, and transfer them to his native country, by opening a new course by sea to the east, less difficult and tedious than the old one. He seems to have been the first to conceive this great project; but the execution of it was reserved for King Emanuel, who, as we shall see, completed it in 1497. The Portuguese long carried on their trade on the west coast of Africa, though it did not prove so profitable as was expected. At last, after a series of successive efforts, extending over eighty years, they attempted the passage by the Cape of Good Hope, the existence of which had been discovered about eleven years previous, and which was considered to be the extreme point of their navigation.

In 1486, three ships were fitted out under command of Bartholomew Diaz, who proceeded as far as the mouth of a river which he named *Del Infanta*, now the Great Fish River. This was the extreme point of his voyage: he discovered nothing of India; reported that he saw wild men on the coasts; and on returning from his voyage discovered the famous Cape, which forms the southwest point of Africa. He it was who named it *Cabo Tormentoso*, or the Cape of Storms. But this name did not appear to the King of Portugal as predicting sufficiently auspicious success of a discovery which, more than ever, had raised his hope of reaching his grand goal, the Indies; and he therefore changed it for *Cabo de Buena Esperanza*, or Cape of Good Hope. Diaz had passed it nearly 140 miles, and in order to mark the extremity of his voyage, he planted a cross on the spot in honour of St. Philip.

Diaz afterwards returned to Portugal, and the extent of his discoveries, under this government, in Africa was 750 miles.

In 1497, Emanuel, King of Portugal, succeeded the deceased King John, and inherited the desire, amounting almost to a passion, which prompted him to discover the safer, shorter, and long sought for passage to the East Indies. Although the scheme was not considered exactly visionary, it was generally condemned. All sorts of objections were raised against it; the storms encountered by Diaz were vividly described to him, and the difficulties altogether were represented as insurmountable. But King Emanuel, having determined to treat the popular opinions and reasonings with contempt, whilst his own were approved by persons whom he knew to be men of penetration and prudence, ultimately

decided that the success of his projects depended on the choice of those whom he should employ. He was then in the town of Estremos, and it was there that he appointed Vasco de Gama, a nobleman at his court, to command his fleet. De Gama united in his person all the qualifications required for such an important enterprise—prudence, perseverance, courage, and had shown already his talent and skill in navigation. The King added to his appointment all the badges of honour which could be bestowed, so as to give the office all possible pomp and influence, and he presented, personally, to the new admiral the flag which he should carry, bearing the cross of the new order of Christ. The Portuguese hero thereupon took his oath of fealty by that cross.

He received the King's letters to several eastern potentates, such as Pope John and the Samorin or King of Kalekut (Calcutta), and ultimately he left Belem, situate one hour's distance from Lisbon.

On Saturday, the 8th of July, 1497, he took his departure with three small vessels, carrying one hundred and sixty men. These ships were named the *St. Gabriel, St. Rafaél,* and the *Bemo.* The two other commanders of inferior rank were Paulo de Gama, brother of the admiral, and Nicolaas Nunnez. A large bark, loaded with supplies, commanded by Gonsalo Nunnez, accompanied them, as also another vessel (karack) destined for Delmina, under command of Bartholomew Diaz. About the Canary Islands, opposite Rio del Oro, they encountered, in the darkness of night, a severe storm, in which the admiral lost sight of his convoy, but rejoined them again, eight days later, at Cape Verde, the place appointed for their rendezvous.

The following day they arrived at the island of St. Jago, and anchored at St Mary's, remaining there for some days, to repair their ships from the effect of the storm, and to take in water. On the 3rd of August, Diaz returned to Portugal, and the fleet proceeded on their voyage. They suffered much from continued storms, so much that they often despaired of safety, until at last, on the 4th of November, Gama discovered a low lying land, along which they sailed for three days. On the 7th, they entered a large bay, which the admiral named *Angra de St. Helena,* evidently the present St. Helena Bay. The inhabitants observed on shore, were small in stature, black, and having an ugly appearance. The sound of their voice resembled groaning. They were clothed with skins of animals, cut in the shape of French *manteaus.* Their weapons of war were sticks hardened in fire, pointed with horns of animals. They lived on roots, seals, whales

(found in abundance on the coast), gulls, and other sea-fowl, gazelles, pigeons, and other sorts of animals and birds; and they had dogs resembling those in Portugal. Gama failed in finding a river, but discovered fresh water, about four miles distant, at a place which he named St. Jago.

The next day, Gama and his commanders landed to learn from the natives at what distance they thought the Cape of Good Hope was. They calculated that it might be thirty miles. Gama surprised here, a negro busy gathering honey at the foot of a tree. He had him brought on board, expecting to obtain from him some information through an interpreter; but although he had among his crew Moors and negroes who understood the difficult languages of the country, he did not succeed in this case; and the detained man was sent on shore after being well entertained and splendidly decorated. This handsome treatment gained over the good feeling of his countrymen so much that the next day fifteen of them came on board. The admiral trusting to their signs for a favourable reception, he again landed, and took with him spices, gold, and pearls, to sound the natives with; but the little interest they took in the valuables showed that these were unknown to them. He gave them presents of little bells, earrings, rings of pewter, copper pennies, and other trifling articles, which appeared to please them mightily; and after that he went daily on shore.

Fernando Veloso, a nobleman, anxious to see the residences and customs of the natives, obtained permission from Gama to land with some men. On the road, a seal which was caught by the natives was being roasted by them, at the foot of a small hill. Veloso, seeing this feast, did not consider himself safe amongst the wild men, and returned towards the fleet, not far distant from the spot. Observing them pursuing him he made haste to reach the shore. In consequence of his loud shouts, calling on the sailors for help, the admiral, apprehending danger, ordered all the boats to Veloso's aid. The negroes observing this, pretended to run away, and retreated behind some brushwood, giving the Portuguese time to approach; they then rushed forward in great numbers with assegais, and other instruments of war, and compelled Gama (who had, meanwhile, advanced in person) to retreat and reach the vessels. Four Portuguese men were wounded, and the admiral himself was injured slightly in the leg. The barbarians retired out of sight, entertaining fears of a retaliation.

In the morning of the 16th November, the fleet weighed anchor with a south-west wind, and in the evening of the

18th, they discovered the Cape of Good Hope. The Cape wind blowing from the south-east, and being therefore directly contrary, De Gama was obliged to stand out to sea. Afterwards, finding the weather sufficiently favourable, he again approached the land, and, having increased sail, on the 20th the fleet made the Cape, and anchored in the bay under sounding of trumpets, and other signs of the great joy caused by the sight before them. The Portuguese discovered along the coast a large number of cattle. They saw, at some distance, residences and villages; the houses appeared to them covered with straw, but there were no habitations on the shore itself. The inhabitants were of a brownish yellow colour, dressed and ornamented like those at St. Helena, speaking a similar language, and carrying the same weapons. As they proceeded along the coast, the country appeared beautiful; they saw several streams and trees. To the south of the Cape they observed, six miles distant, a beautiful bay extending about six miles inland, and not less than six miles broad. On the 24th, they arrived at *Angra de San Blas* (now Mossel Bay), sixty miles beyond the Cape. Here Gama erected, on the shore, a column bearing the arms of Portugal with a cross; but on returning to the ships, he saw the negroes destroy this monument.

He left on the 8th of December, and encountered a fearful storm, which lasted for some days; but this did not prevent him from making the land there, where it is covered with small rocks, sixty miles beyond San Blas; the country appeared very beautiful, showing an abundance of cattle. He noticed along the coast large forests of trees. The next day he proceeded five miles beyond and passed the rock *De la Cruz*, where Diaz had planted the extreme beacon of his past expedition. This rock caused some violent whirlpools, but he fortunately passed through them, without danger, aided by a favourable wind, which gave him great courage. On the following Christmas day he made the land again, and on that account named the country *Tierra de Natal.*

Having thus far attempted to sketch the result of my researches regarding the discovery of the Cape, I will now further proceed to note the early voyages made by the English in the same direction.

In 1591, an English fleet of three ships—the *Penelope*, commanded by Admiral Capt. George Raymond, the *Royal Merchant* by Vice-admiral Capt. Abraham Kendal, and the *Edward Bonaventura* by Commodore Capt. James Lancaster—sailed from Plymouth on the 10th of April; but although Capt. Raymond left as admiral, since his ship was lost and himself was never

heard of afterwards, the honour of this great enterprise is due to Capt. Lancaster and his lieutenant, Edmund Baker, who published the account of it.

On the 28th of July, they sighted the Cape; until the 31st they struggled with contrary winds, and attempted to reach *Agoada de St. Blas*, about sixty or seventy miles beyond, for the purpose of obtaining refreshments. The weakness of their crews prevented their attempting to land any where else. At last, they approached the coast to the north of the Cape, and running in sight of the land they found the *Agoada de Saldanha*, described as a beautiful bay, having an island at the entrance. On the 1st of August, they anchored, and both the sick and the healthy were alike anxious to get on shore.

A number of black and wild natives approached, but soon again disappeared. During fifteen days, none made their appearance, and the English met nothing but cranes and geese, which they shot and found to furnish excellent refreshment. Their only other delicacies were muscles and other shellfish, which they gathered along the rocks. Ultimately, the admiral determined to go to the island in his boat; he found there penguins and seals in abundance. Other boats followed, and some days after the sportsmen found a negro, whom they urged to go with them into the interior, giving him to understand by signs that they wanted cattle. They wandered long without success, and allowed him to depart showing him all kindness and giving him presents. This treatment met with the same success as in the case of De Gama; thirty or forty negroes soon made their appearance, with forty young oxen and about as many sheep, of which they bartered some,—the oxen for two knives apiece, and the sheep for one. The oxen of this country, which they saw, are described as heavy, but their flesh as rank, though in good condition. The sheep were very fat, having hair instead of wool, and extremely fat tails, resembling the Syrian sheep. Capt. Lancaster shot an antelope, of the size of a foal, of reddish colour, and they observed many wild animals, and particularly several very large baboons.

In the state to which the men belonging to the crews were reduced by sickness, it appeared that it would be preferable to proceed with two ships well manned than three with an insufficient number of sailors. Of two hundred and forty-eight men who had escaped illness, one hundred and one were put on board of the admiral; ninety-seven on board the *Edward*, fifty of whom were tolerably well recovered, and returned, on that account, to England in the *Royal Merchant*.

Scorbutic diseases caused the greatest destruction; the soldiers, who had not been to sea before, stood the best, but the sailors died off rapidly. The writer attributed this to the good provisions the former had enjoyed at home. Six days after the departure of the *Royal Merchant*, the ships left Saldanha Bay, and soon passed the Cape of Good Hope.

In 1601, a number of wealthy merchants in England formed themselves into a corporate body, named the East India Company; they contributed £72,000 sterling, to be employed in purchasing ships and merchandise, to establish a trade with the East Indies; they bought and fitted four roomy vessels—first, the *Drake*, of 600 tons and 202 men, commanded by Capt. James Lancaster (afterwards Sir James), general and commander of the fleet (the same mentioned above as having proceeded to India in 1591); second, the *Hector*, of 300 tons, and 108 men; third, *Ascension*, 260 tons, and 32 men, under William Brand, director of the trade; fourth, the *Susanna*, of — tons, Capt. Jno. Hayward. On board of each vessel were three merchants, with commissions to succeed one another in case of death. To these ships was added the *Guest*, of 300 tons, as a vessel of supply. This fleet was provided with full crews, supplies and necessaries for twenty months, and carried in merchandise and Spanish coin, the value of £27,000 sterling; the remainder of the capital was employed in purchasing and fitting the vessels, to provide for necessary purchases, and advances to soldiers and sailors. Queen Elizabeth, at the prayer of the company, granted letters of introduction to several potentates in India, offering to enter with them into an alliance of peace and friendship; and as no great enterprise could be effected without authority, she granted a commission of military power to the general.

On the 13th February, 1601, the fleet left Woolwich, but was detained by contrary winds. On the 18th April, in Torbay, the general ordered their departure, and commanded the ships to keep in company, if possible; if separated, Saldanha Bay was fixed as one of the places of rendezvous. On the 22d April, 1601, they left finally for the Canary Islands.

The wind carried the fleet two hundred and fifty miles from the Cape, and it lasted fifteen or sixteen days. Sickness had then raged to such an extent, that the few hitherto healthy were also attacked, and the merchants had to work as common sailors, and perform the most menial of the ship's duties. The wind, however, turned favourable, and brought them to Saldanha Bay on the 9th of September. The general took the precedence, and cast anchor first. He immediately sent

his boats in aid of the other vessels, who were not able to drop their anchors; and Lancaster himself assisted personally to lower the boats. The better health of his men he attributed to limejuice, of which he had provided himself with an abundant supply before going to sea.

The general's care soon secured comforts to those of the fleet requiring them; he landed himself to procure refreshments; he gave to the natives he met knives, nails, pieces of old iron, and other trifling presents, to induce them to provide cattle, and they seemed much pleased. He spoke to them in animal language, which, since the confusion of tongues at Babel, had remained unalterable. The word *booe* he used to indicate an ox, and *mæe* for a sheep, and the native Saldanians understood him sufficiently without an interpreter. He ordered the sails of the vessels to be brought on shore to serve as tents for the sick, and to make entrenchments for defence, in case of attack from the natives. He regulated the mode of trading with the natives, when arriving with cattle; five or six men, specially appointed, were only employed; all the others, never less than thirty soldiers and pike-bearers, were to remain at least at the distance of five or six hundred feet, with their arms piled in readiness for defence in case of accident. This rule was strictly observed; no person dared to speak to the natives without leave; and the writer attributes to these arrangements the peace and great good feeling which subsequently reciprocally existed between them, as distinguished from the opposition shown to the Dutch, of whom five or six men had been treacherously murdered.

On the third day after the arrival of the fleet, the Africans brought many oxen and sheep, which were bought for pieces of old iron hoops; one ox was obtained for two pieces, each of eight inches, and a sheep for one piece; and the sellers appeared well contented. Thus the English had bartered from them, in ten or twelve days, one thousand sheep and forty-two oxen, and they could have obtained more, if deemed necessary. The cattle were grazed on the hillocks near the tents, and the natives, in consequence, did not bring any cattle for twelve days. However, they often visited the camp; and when a sign was given to obtain more sheep, they pointed to those grazing. This caused the English to presume that they suspected their settling here, and that consequently they did not bring any more cattle. The natives are described as brownish in colour, having a good figure, and being quick on foot; expressing their words in guttural sounds and clicks of the tongue, so that none of the English, during their stay of seven weeks, could learn a single word of their language,

whilst they, on the contrary, understood immediately the signs given.

The refreshments were so good that all the sick, except four or five, recovered; they numbered one hundred and five men, and it was held that they were stronger than on leaving England.

On the 24th of October, the general ordered the tents to be struck, and the men to proceed on board; and, having taken in wood and fresh water, they left on the 29th. Table Mountain is described as in view of the bay, a safe landmark to discover the harbour, and visible seventeen or eighteen miles at sea.*

If we consider the favourable and advantageous position of the Cape for navigation between Europe and India, and the numerous visits of the English to this place after their first visit to it, here described, it seems astonishing that no settlement was commenced in South Africa until 1652. It was visited in 1591 by Capt. Raymond, in Saldanha Bay, or perhaps Table Bay; 1601, by Sir James Lancaster; 1604 and 1610, by Henry Middleton; 1605, by Davis and Sir E. Mitchalbome; 1606, by David Middleton; 1607, by Keeling and Sharpey; 1611, by Dawnton and Heppon; 1612, by Soris, Castleton, Best, and Ralph Wilson; 1613, by Newport.

Capt. Dawnton landed, in 1614, at Saldanha or Table Bay, with a Hottentot named *Koree*, who the year previous had been taken to England in company with another, who died. He was clothed and maintained by Sir Thomas Smith, Governor in the service of the East India Company. This African, far from being happy on account of being well treated, though a whole set of arms in copper was given to him, anxiously wished to return to his native country, and the company shipped him back with this captain; but scarcely had he returned on shore when he threw away his clothing, and adopted his old mode of living. However, when, in course of time, English vessels touched, he was very ready to render them service, by supplying provisions, refreshment, and cattle.

In 1614, Captains Milward and Peyton visited the Cape; the lastmentioned brought with him ten men, sentenced at the Old Bailey. At the request of the East India Company,

*From this, it appears that the Saldanha Bay of Lancaster, and the other early English voyagers, means the Table Bay of later times. The island spoken of as being at its entrance is evidently Robben Island. Herbert's "Itinerarie" speaks of this bay of "Souldania, which lieth in thirty-four degrees and a half of south latitude, and is beside a most delectable brook of pure good water, rising hard by out of a mighty hill called, from its form, the Table." (See *Cape Monthly Magazine*, vol. 1, p. 256.)—Eds.

they were banished to this country, and landed on Penguin, now Robben Island, since used by the Dutch as a prison establishment for criminals. But these men died unfortunately; Cross, their chief, was killed in a quarrel with the natives; four were drowned attempting to reach an English vessel; three, surviving their fellow prisoners, returned home again, but only to be executed, on account of thefts committed by them, three hours after their landing in England.

It seems strange that the English East India Company could promise themselves any advantage by sending felons to the Cape, as they could have formed an important settlement here, if they had taken proper precaution, long before the Dutch were attracted with the value of the situation. For although St. Helena, which they afterwards occupied, might be considered a proper place for refreshment and refitting to their East India fleets, yet, for many reasons, it could not be compared to the Cape.*

I shall not trouble my readers, for the present, with the accounts given of the Hottentots by several writers, such as Father Tachard, Kolbe, Anderson, Dapper, and others, but close this sketch of the earliest visits of Europeans to South Africa, and hope to commence my next paper with an account of the occupation and settlement by the Dutch, about the year 1650.

Wynberg, July, 1857. P. B. B.

*In 1620, thirty years before the project of settlement by the Dutch, possession was formally taken of the Cape by Captains Shillinge and Fitzherbert, in the name of King James I. The proclamation of the captains to this effect, is preserved in the archives of the English East India Company; and is given by Sir John Barrow in the preface to his *Travels in South Africa*.
EDS.

MR. PUMP'S PROTEST AGAINST RAILWAYS.

I AM a practical man, and I am a plain man. My name is John Pump. All the Pumps are plain men, and the Pumps are an ancient family. Not that I mean to boast of my pedigree: I'm not an aristocrat, and I don't know anything about *gealogy*, or whatever you call it; but my brother Tom, who has read a great deal more than a practical man ought, says that many princes and kings and ministers of state have been Pumps. For my own part, I never read at all, except the newspapers. I have been reading the newspapers lately,

and I see plainly enough that the newspapers and the Parliament are determined to ruin the country. It is time for a practical man to speak out, and I mean to do it.

Railways indeed! Introduce railways! What for? what do we want with railways? We kept the convicts out, and we want to bring in railways. Why—they are worse than all the convicts in the world: they are the main cause of all the wickedness in the world, the foundation of all the roguery, trickery, deception, thieving, embezzling, forging, eloping, and everything that is rascally. Who was Robson? A railway clerk. Who was Redpath? A railway clerk. Who was Sadlier? A railway speculator. Is not one mad, the other transported, the third a suicide? And do you want to introduce such fellows here? Don't tell me that railways did not make them rogues: I should like to know whether they could have done what they did without railways. I'm a plain man, and I should like a plain answer.

Is not the curse of Europe the spirit of speculation? Don't men of capital ruin themselves by it? Don't clerks rob their masters for it? Don't servants steal for it? Don't wives go into debt with their milliners and spend their pin-money on it? And what causes speculation? Railways!

Who stays at home now? Where do you ever find a man who can say "I was born in this town where you see me; I have lived all my life here, and I mean to die here?" Does not everybody go gadding about, and flying all over the world at thirty miles an hour, and making a travelled monkey of himself, and get to fancying Frenchmen as good as Englishmen, and frogs as good as beef, and claret as good as beer? And what is the cause of all this? Railways!

Did you ever hear of an elopement at the Cape? No. Don't you hear and read of them every day in England and the rest of Europe? Don't wives and daughters constantly run away with popinjay scamps with hair on their lips and nothing in their pockets? And how do they run away? By railways!

Did you ever hear of thirty or forty people being smashed to death, and a hundred and fifty more with broken arms and legs, from travelling in a Cape wagon? Didn't you ever hear of it in England? Of course. Railways again!

But what *do* we want with railways here? We do very well without them. *I* have done very well without them. I began life with a wagon and a span of oxen, and now I have got about—never mind how much—a year. I am not going to satisfy your curiosity by telling you. And that, by-the-by, reminds me of another evil of these abominable railways:

they encourage curiosity to a frightful extent. Men go rushing off to *see* things that they would never have troubled their heads to *think* about in the good old times. And at the railway stations they buy cheap books, and read them as they travel. For my part, I never could see any use in books: *I've* got on very well without them. Depend upon it that the newspapers will always tell you everything that's worth knowing, and a great deal that isn't too. And what do books tell you? A lot of rubbish about dead kings and queens, which they call history; a lot of lying stories which they call romance; and a lot of stuff, without any meaning at all, which jingles in rhyme, and is called poetry. I never saw the man who was the better for reading any one of them. Look at me! I've never read them, and, as I told you before, I've got—never mind how much a year.

If there is one word I hate more than another, it is that horrible word "fast." I look upon every fast man as a swindler, and every fast woman as—no better than she ought to be. And what makes people fast but railways? How can people be sober, steady, and grave when they are whirled through the air like so many wild geese, while the engine does all the screaming for them? I live on my farm. I like to be quiet. The Pumps are all quiet men, except that young brother Tom of mine, who is a disgrace to us. The fellow is always running about somewhere, and calls himself Air-Pump; and because I have become slightly corpulent, he has the impertinence to address me as Stomach-Pump. But that's not the point. I repeat that I am a quiet man. Now I should like to know how I am to continue quiet, if Parliament should go and sanction a railway right across my property—perhaps under my very nose—with its screeching trains whizzing past me a dozen times a day, and all sorts of people stopping and roving about my place? I declare it is quite appalling, and I don't consider that we live in a free country if this sort of thing is to be allowed. Besides, I have a family, and I take care to keep them at home. No fear of their gadding about, while an ox-wagon is their only means of travelling: no fear of any long milliners' or tailors' bills from Cape Town coming in *now*. But imagine the difference if a railway were at hand! Think of it, fathers of families, and don't let newspapers and parliaments make fools of you.

I am not very fond of telling stories; but I will just tell one as a warning. It is a true one, and ought to be known. Here it is:—

My old friend, Abel Bluff, was as quiet a man as myself. He lived on his farm, in England, and did everything in the

good old style. He hated all foreign, new-fangled notions, and stuck to everything that his father and grandfather had stuck to before him. He married a woman who had been brought up with the same ideas as himself; but, then, women are not like men, and I must confess that I always thought Mrs. Bluff would turn out a little flighty. In the course of time, Abel had a large family. The eldest was a daughter, and her mother was so ridiculous as to have her named Arabella, instead of Susan, or Jane, or Betsy, or something of the kind. The girl was taught to read and write, and to darn stockings and make pastry; in fact, she had as good an education as any woman ought to have. But her mother was always plaguing to have the girl taught French and music! As if English is not a good enough language for a Christian to speak, and as if a piano is not the greatest bore that can be introduced into a quiet house. Abel was no fool, however, and Abel said "no," and stuck to his word.

The first great trouble of Abel's life was the establishment of a railway that ran through his county and within a mile of his own house. He always predicted that it would be his ruin, and so it was. First of all, it brought free trade, which every one knows, ruined all the farmers in England: at all events, the country party (as they are called) have always said so, and I believe them. Perhaps it never struck you that it was railways that caused free trade; but the thing is as plain as Table Mountain. If there had been no railways to bring the corn down to the ports, it would have been of no use to admit corn free of duty; for where was it to come from? It is quite clear, therefore, that railways ruined the English farmers, and they'll ruin the Cape farmers, too, if they don't look out in time. But it was not through free trade alone that they ruined Abel Bluff. Let me go on with my story.

Arabella Bluff was what is called a lively, clever girl—I should say a pert, precocious little jade, always scheming and planning something underhand. Her father was very proud of her, as fathers always are of children who least deserve it. And so, when Arabella was observed to be constantly away from home for several hours during the day, she always managed to persuade Abel that she was on some good errand or another, and her mother invariably helped her out.

It happened that through free trade and railways a new set of men came to rent the land about Abel Bluff's farm; and the fellows brought all sorts of new notions with them—patent draining tiles, American ploughs, chemical manures, and I really don't know what besides. They called it high-

farming, and declared that they would get double the crops out of the land that it had ever produced before. Abel was disgusted with them, and refused to have anything to do with them. But they managed to curry favour with their landlord, who was Abel's also, and it got whispered at last that Abel was likely to be turned out of his farm when his lease expired.

Abel began to be very down-hearted; for free trade had ruined him, and he found the rent much too heavy, while these railroad fellows declared the land would bear even a heavier rent if it was properly farmed. What did they know about it? Hadn't Abel, and his father and grandfather before him, farmed the land, and hadn't they always stuck to the same notions? And that is just what I advise farmers to do here, and not to let railways and all sorts of novelties come in and ruin them.

"Father, dear, shall I sing you a song?" said Arabella one evening, as Abel was looking very glum.

"Eh? sing? can you?" asked Abel.

"I'll try," said Arabella, blushing; and away she went, not to the tune of "Home, sweet home," but some outlandish thing, which was pretty enough in its way, and pleased poor Abel in his low spirits.

"Why, girl, where did you learn that?" asked Abel when she finished.

"Ah, father dear, you won't be angry, will you?" said the little minx, and she went and kissed him and fondled him till he was as pleased as a child with a new toy. And then she told him how she had been taking lessons twice a week at Stumpford, which was about five miles off, for a long time, and how mamma had saved the money to pay for them.

"And how the deuce did you get to Stumpford without my knowing it?" cried Abel.

"By the railway, father dear," answered Arabella.

"The railway be ———."

"Oh! you said you wouldn't be angry," screamed Arabella, and she stopped poor Abel's mouth with a kiss, and he gave a groan, and told her to sing another song. Little did Abel see the consequences of all this.

Some time after this, Arabella was one day missing from the tea-table. Where was she? No one knew. Abel was very angry, but a little bit frightened also. Mrs. Bluff suggested that she had most likely stayed with Miss Smith at Stumpford, for she knew she intended to run over there by the railway.

Abel applied a naughty word to the railway, and Mrs.

Bluff was more than ever alarmed. Early next morning, Abel rode over to Stumpford—not by railway, but on his own stout cob—to inquire for his daughter. Miss Smith knew nothing about her: nobody knew anything about her: but somebody suggested that Abel had better ask at the railway station. He was annoyed at the suggestion, but was obliged to follow it after all; and so, for the first time, he found himself in a railway office. And what was the result of his inquiry? That his daughter had gone off, the previous afternoon to London, with a "foreigneering looking chap" (so the railway policeman described him) "with large moustachers."

Abel was nearly mad, and could scarcely be restrained from assaulting all the railway officials at once. He departed, vowing to summon them before all the courts in the kingdom. Next morning came a letter, very badly spelt, from a fellow who signed himself "Alphonse de Colombe," informing Abel that he had taken the liberty of marrying Arabella, suggesting the propriety of her father's making a settlement on her, as his income was very minute in amount, and derived only from teaching music, and ending by vowing to love Arabella "til deth."

Abel's ejaculation was again something about the railway. He never answered the letter.

A week later, Mrs. Bluff was missing. This time Abel did not wait till the next morning, but rode over to Stumpford to inquire about his missing wife. Again he was referred to the railway; again he went there, and again he got the required information. She had gone to London.

"Alone?" asked Abel.

"Yes."

"You're sure—I say—that is—come tell the truth—but wasn't there—eh?—was there any foreigneering fellow with *her*, eh?"

A roar of laughter was the answer. It seemed exquisitely ridiculous to the railway officials to fancy Mrs. Bluff, fat, fair (or rosy) and five and forty, eloping! Abel didn't see the joke, but walked off in a huff.

Next day came a letter from Mrs. Bluff, confessing the whole truth. She had constantly been running over to Stumpford by rail; she had run up long bills there, and now they poured in to the amount of £135 odd. She dreaded her husband's anger: and she would never, never come back till he forgave her.

Abel said something about the railway again.

His resolution was taken: he got rid of his lease; sold his

stock, and has just taken his passage (with his wife, whom he has forgiven) for this country as the only colony he could hear of where there are no railways. Poor fellow! what will be his feelings when he hears what the Parliament and the newspapers have been doing! He'll never hold up his head again—for he will once more see ruin staring him in the face from railways.

Fellow countrymen, is not this story a deep and solemn warning to you all? Think what may be your fate, and how the punishment will justly fall upon your own heads, if you give up the good old age of wagons, and let in all the dangers and the moral corruptions of those satanical inventions—railways!

COLONIZATION.

From whatever point of view we look at this subject, we cannot but be struck at the immense importance with which it bears upon the moral, political, and social progress of the human race; and we cannot fail to recognise it as a Divinely appointed agency, by means of which the knowledge of civilization and the enlightenment of Christianity are spread among the abodes of savage darkness and barbarian night.

It would be impossible, within the limits of an ordinary article, to give anything like a history of colonization; for so primarily is it connected with the various organizations and instrumentalities which have been in operation since the creation for the peopling of the earth, that such a history would be in fact but a record of the world's existence.

We shall however briefly enumerate a few of the leading facts connected with emigration, which may be said to form the principal eras of its history.

The first emigrant of any note, and of whom we have specific record, was Abraham, the father of that race which, after an endless series of mutations and reverses, and through a period of 4000 years still cherish the identical customs, possess the same mental and physical peculiarities, hold the same faith, and maintain the same principles which were propounded from beneath the shadow of Sinai by their great lawgiver and prophet. We read that the patriarch left the land of his birth, to seek a country where God had promised that he would make of him and his seed a great nation, more than the stars of heaven in number; and so it was, and the history of Abraham and his descendants instructs us that

however small the first population of an infant settlement may be, it may in time increase with such rapidity as speedily to assume a form and assert its place as one of the nations of the earth.

Referring to other countries, too, we find that all those nations who have become celebrated in history for the extent of their empire, or their advancement in civilization and the arts, have been originally merely settlements of small bands of colonists from other lands,—emigrants who have encountered the perils of the ocean, and all the privations consequent on a residence in a barbarous land, for the sake of either increasing their wealth, opening up new sources of commerce, or, as in some cases, flying from the persecution or tyranny of their own governments. The settlements of Greece were in this manner formed by Cecrops, Cadmus, and Pelops; the native lands of the settlers being Egypt, Phœnicia, and Phrygia. How rapidly these Grecian colonies merged into separate and independent states, and how splendidly they advanced in civilisation and refinement, is a subject which every schoolboy knows. These new formed states, again, themselves branched off in various directions, and thus the settlements of Sicily, the Isles, and Italy were commenced, until, finally the latter manifested its destiny to outsrip every other nation, and to bring Greece itself, with the rest of the known world, under its sway, and be the means of extending civilization through its numerous dependencies, over the face of Europe. Then our own country, Britain, first rose into notice as an appanage of the Roman Empire. When first taken possession of, it was but an uncultivated and almost unpopulated wilderness. What a spectacle must England have then presented to the Romans, who probably passed through it with much the same feelings as an Englishman now experiences when travelling through Kaffraria or Zululand; he saw around him great natural luxuriance, vast forests, abundant rivers, a fertile soil, but a barbarous and savage people, who, with the most uncivilised habits, combined a religion fiendish and unnatural to an extreme. In this respect, the aboriginal Briton was lower in the scale of civilisation than even the Kafir of South Africa.

There is probably but a very small remnant of the old British stock left now in the country, and what there are must be chiefly Welsh (the ancient Cymri), who have retained their national individuality as regards language, names, and a few trifling customs, with a freshness not to be found in other parts of England.

After the Roman abandonment, Britain became the object of either the rapacity or enterprise of other nations. The chief of these were the Saxons and the Danes. The latter came first, but from their distinctive peculiarities as a predatory and unstable people, and from the limited period they were resident in Britain, they have left no distinctly traceable descendants, while the Saxons, who ruled the country for a long and continuous period, form, through their posterity, a large proportion of (if we may use the term) the true English hereditary blood. Then, and last, came the Normans, who introduced the few refinements of their more advanced civilisation, combined with that warlike chivalry, which was such a characteristic of the age.

And then, in later centuries, commenced that era of Britain's greatness, when her flag first began its conquests, and when her sons went forth into unknown regions for the purposes of enterprise and colonization; when that Saxon spirit which has now become so famed for its energy and indomitable perseverance first displayed itself.

We must not, however, give to Britain the foremost place in this respect among the European nations of the middle ages. Long before she had become settled under her Tudor rulers, and before the various races and classes which then formed her population had become fused and amalgamated into one people, Spain, at that time in the zenith of her glory, had set forth on a career of discovery, the brilliant results of which were to invest that portion of her annals with a lustre which must continue undiminished as long as history is studied, or dauntless, persevering courage admired. Spain may, in fact, be called the pioneer of modern colonization, and a citizen of the neighbouring state of Portugal was the first European who set foot on this southern peninsula. But the event which outshines all her other achievements was the discovery and opening up of a new Western World, the existence of which had scarcely before been dreamed of.

Spain, however, in consequence of her internal contentions, soon relaxed her efforts for the vigorous prosecution of her discoveries, with the view to making them available for the purposes of commerce and empire; and Britain then stepped forth, at first, it is true, but feebly, but with rapidly increasing strides, on her march of civilization. India was the first to attract her attention, or rather that of the merchants or wealthy *bourgeoise* of that day, who dispatched small parties to form stations and factories on the coast. These gradually increased in number and importance, and became the nucleus

of the celebrated and almost imperial East India Company, which now wields an undisputed sway over the whole of that vast and rich peninsula.

America, of course, soon became an object of interest to the British people, to one of whom—John Cabot—belongs the honour of discovering the continent itself. Although our countrymen had been preceded by the French in Newfoundland and Canada, yet they were the first settlers on the shores of New England, now the most populous and thriving part of North America. Colonization has there, indeed, advanced with a rapidity to which we cannot find a parallel in ancient history. Rome was one thousand years ere she attained her pinnacle of greatness, while the States of North America have, in two hundred and fifty years, reached a height of civilization, to which Rome herself can at no time in her history, present a parallel.

About forty years ago, the British government first formed settlements in Australia, then a country only recently discovered, and of the inhabitants and resources of which nothing was known. At the outset, and for many years after, but a penal settlement, it gradually grew into a flourishing colony; and the discovery of gold, five years ago, was, as every one knows, the means of throwing into its midst a vast population, comprising every grade, class and occupation; and of raising with a celerity, almost realising the fabled powers of Aladdin's lamp, a populous and busy city, where, two years previously, nothing could be seen but a few straggling groups of houses. The possession of such a continent as Australia, in extent not much less than the whole of Europe, with exhaustless mineral wealth, and many other varied and more substantial resources, and also an interior hitherto wholly unexplored, is a circumstance of which Britain may be truly proud.

Nor must we omit to mention the neighbouring islands of New Zealand, taken possession of shortly after Australia, and a country which, although completely isolated from other lands, contains within itself the capabilities of an important state, and has shown itself to be well worthy of the attention and interest which it is so largely attracting.

Need we mention the innumerable other colonies which form part of the British empire, to give an account of which would be but to tire our readers, and lay ourselves open to the charge of tediousness. For do not the West Indies, Mauritius, Bermuda, the coast of Africa, &c., bear witness to the fact that Britain's influence is felt throughout the world, and that all colours, climes, and nations acknowledge the sway of her noble Queen.

With the exception of the French in Algeria, and the Spanish in South America, there is now no continental nation that carries on a system of emigration to any extent, or which possesses colonial dependencies of any importance. Britain alone, stands single and pre-eminent in this respect. The reason of this fact is obvious.

The chief promoters of colonization from continental countries, and, above all, from Spain, have been not the people, nor even the state, but the priests—that is—the Jesuits, whose efforts had, for a time, in many cases, wonderfully succeeded. We do not wish to enter upon the religious question at all, but we do think that their colonization systems were unsound; and their influence among the nations they visited, consequently, soon decreased, until finally they had to abandon their designs, and to leave the scenes of their labours.

This fact of the non-success of the Jesuits is abundantly proved by the number of deserted convents and monasteries which abound in India and other heathen lands, and of which we have had recent and interesting evidence through the indefatigable explorer, Dr. Livingston, who informs us that along the road between Loando, Cassange and the eastern districts, he frequently came upon deserted monasteries and stations, which had been the residence of Jesuit missionaries two hundred years ago; and this too, let it be remembered, in a land that had scarcely ever been visited by an Englishman.

With reference to our own country, how similar have been the agencies employed, yet how widely different the result. English modern colonization has, in almost every case, been preceded by the labours of the Protestant missionary, who has indeed proved himself to be what he is so frequently termed—the pioneer of civilization.

In former times, and indeed until a comparatively recent date, it was the custom of the home administration to treat the colonists with a certain degree of contempt, and to refuse them those privileges and rights which were enjoyed by their fellow-countrymen in the fatherland; and the aggravation caused by this circumstance was also increased by many galling restrictions and harsh impositions, which, naturally, were felt the more severely, from the absence of all means of redress. The evil effects of such a system cannot be sufficiently estimated, and America was an example of what the continuance of such a course of procedure resulted in.

It may be well here to inquire why the inhabitants of colonies should have been looked down upon as a lower grade of beings than their home-bred countrymen. If they had in any

way degenerated in their moral and mental faculties, there might be some ground for this feeling, but such is not the case; if any change has taken place, it has been in the upward scale. We affirm that more sound sense and intellectual acuteness may be found among the inhabitants of British colonies, than among the same class in Great Britain herself. Where, in any of the colonial towns, can the traveller meet with the indigence and vice, the ignorance, filth and beggary, so abundant in the overcrowded cities of the British Isles? Where will you find in the colonies, the miserable factory people, the starving sempstresses, the clodpole labourers that are, alas! so numerous in the old country? And it is but natural that it should be so; there is something ennobling and elevating to the mind and intellect in living among the mighty works of untouched nature, in feeling oneself to be as free as the air we breathe, and unencumbered by the social fetters which ceremony, class, or usage impose on our actions in the mother country; in being in a land where every individual, however humble his position or calling may be, can feel that he is working for a definite object, and has ample scope to work out his own success. The aspirations of the heart and intellect become purer and loftier, and the love of liberty which lies deep in the bosom of every Briton becomes revivified into renewed life, and takes deeper root and a more tenacious hold of man's best nature. And thus it is that he grows more jealous of his rights and liberties, views all encroachments with suspicion and dislike, and chafes at the slightest marks of neglect and petty insults, endured from a government thousands of miles off, that has no means of knowing his local wants and requirements, and of becoming acquainted with his grievances. It was under such circumstances as these, that the American revolution broke out.

Fortunately, the British government has learned wisdom from experience, and of late years has acted on a very different principle to that formerly adopted. At the present time, all colonies of any importance or standing have had granted to them constitutions or charters, suited to the several stages of progression of each dependency. By these charters they became possessed of the right of self-government, in all matters affecting their immediate interests. In this manner Canada, Australia, and New Zealand, our own Colony, and Natal have all become the recipients of this great boon.

Canada of course, from her position and progress, has the most liberal constitution: indeed she possesses the same rights as the neighbouring states of New England, &c., and now partly dispenses with British troops, having raised a defensive force from her own population.

Looking to Australia, the intelligent observer cannot but feel uneasy as to the stability of her constitution. Like all countries forced into an unnaturally progressive condition, she is restless and unsettled, and it will require a great amount of tact, energy, and withal conciliatory statesmanship, to bear her safely over the troubled waters of her present transition state.

Respecting the other countries which come under the sway of our Queen, it is needless for us to say much. New Zealand advances surely and rapidly, depending upon more stable resources than the fickle luck of gold. Mauritius, Ceylon, and the West Indies are countries which are looked upon as fields for the investment of wealth and capital, rather than as offering any remarkable inducements for European emigration, and the same remark applies to India.

And now, in conclusion, we shall offer a few remarks on the advantages accruing to Britain from the possession of her colonies, and the influence they are likely to exert in future ages.

It is our firm conviction that it will be through her colonies that the glory of Britain, unlike the transitory and evanescent splendour of the ancient empires, will be carried forward to unnumbered generations; and we believe it to be the design of an unerring Providence, that *she* should be the nation whose sons are destined to populate, possess, and civilize the vast and, till recently, unknown regions of the earth; by whom the Christian faith shall be extended over the face of the globe. Let us survey the world's map, and we shall see Canada, a country fast promising to speedily rival the fatherland; we shall see Australia, a continent in size almost equalling Europe, and without the bugbear or drawback of powerful aboriginal inhabitants, rapidly becoming populated by our fellow countrymen; we shall see India, a land teeming with wealth and profusion, inhabited by an enormous, but completely subjugated, native population; we shall see innumerable other lesser colonies all advancing with a prosperous British population; and last, though not least, we shall see our own immense territories of Southern Africa, containing unlimited resources and means of wealth, fast dotted over with the homes of European settlers; we shall see all these loyally owning allegiance to the crown of Britain, cherishing the same language and customs, and, above all holding firmly that same Divine faith for which their fathers bled and suffered.

We purpose in a future number to continue this subject in its more immediate reference to South Africa. J. R.

THE WRECK OF THE "BLENDENHALL," AT TRISTAN D'ACUNHA, IN 1821.

BY ONE OF THE PASSENGERS.

(CONCLUDED.)

SEPTEMBER 26th, the carpenter laid the keel of another punt, and, being a good boat-builder, we placed great confidence in his being able to finish her in such a manner as to facilitate our premeditated trip to Tristan d'Acunha.

On the 30th, six of the men killed a sea-elephant, about twelve feet long; this they accomplished, after nearly six hours had elapsed, by beating him over the head with large clubs. Thus far, we have not had forty-eight hours without rain and intensely cold weather.

On the 4th October, the weather being mild and wind moderate, the punt was launched, and sent out to fish; and in three or four hours returned, having caught about fifty fish. The fishing-lines were made of ropeyarns, and the hooks of nails. The punt having answered so well for the purpose of fishing, another was commenced, and finished in a few days; she was employed in fishing, whenever wind and weather permitted; and those assisting to haul them up got a proportion of fish. This was much more than I expected, from their general bad conduct and abusive language to the passengers, which frequently extended to their late commander,—and which afforded a very bad specimen of the generally acknowledged generous character of British seamen. The boatswain, carpenter, and James Harris were the only exceptions.

On the 6th, some of the passengers commenced building a punt for themselves, procuring planks from the wreck. The carpenter having finished building his boat—the weather being moderate, on the 14th all hands went down to the beach to launch her, but were much mortified and disappointed in finding her very crank and unmanageable, being too narrow for her length, a defect which could only be remedied by cutting her in half, and inserting another plank in the middle; and the alteration was consequently commenced without loss of time.

On the 18th, we were all put in high spirits, one of the men having seen a ship from the southwest point of the island. Two of the passengers went up the hill, with the intention of making a fire, but the haze was too great for them to see the vessel; she was too far off to trust our boat to venture out to her; but we still hoped that she was a South-seaman come to kill sea-elephants, and we therefore did not despair of seeing her the following day, and of soon being released from our miserable condition; but our hopes were sadly disappointed, when we found that she had disappeared.

I grieve to think that even in our deplorable condition, some were inclined to pilfer. Lieut. Pepper and his wife having

unguardedly left their tent, some evil disposed person stole a watch and other articles, to the amount of about £70.

October 19th, weather very cloudy and hazy, wind mostly from the southwest, the first built punt, with six of the crew, left us for Tristan d'Acunha. The attempt, in everybody's opinion, was rash; and many tried to dissuade them from risking their lives in so ill-constructed a boat, and advised them to postpone their departure till the carpenter's boat could be got ready to accompany them; but they had determined upon it, and remonstrance became useless. They set out with the heartfelt and anxious prayers of every individual for their safety; they were seen about noon considerably to the northward, and apparently with the wind and swell against them; doubts were entertained of their being able to effect their dangerous undertaking, and it is with extreme sorrow I have to say that nothing has since been heard of these poor unfortunate fellows. A severe gale having occurred, on the evening of their departure, the boat must have foundered with all hands.

On the 20th, the carpenter finished his boat, and, on trial, we were glad to see that she was so much improved; having been widened six inches in the manner before mentioned, she was found to be perfectly manageable in a seaway, and pulled well.

On the 21st, a party of seamen went up the hill and observed a ship standing off and on Tristan d'Acunha, but the day was too far advanced for the carpenter's boat to start. This ship, we afterwards learned, was the *Providence* from England with convicts for Sydney, and had touched at Tristan d'Acunha for potatoes and other refreshments that the island afforded.

On the 22nd, the carpenter got his boat ready for sea; having seen the ship the day previous, he resolved upon making an attempt for Tristan d'Acunha, in hopes of being able to reach the island and detain the ship for our assistance; but on launching the boat, she got broadside on to the surf and filled, which obliged him to return to the shore and defer his departure to a more favourable day; and a most fortunate delay it proved, as in the evening it came on to blow severely from the northwest, with a swell so heavy that the destruction of the boat and all hands must have followed. Some of the passengers and seamen went up the hill to make a fire; they remained all night but returned early the next morning, much fatigued, having suffered severely from the wind and cold; no vessel in sight.

On the 30th, the weather being very fine, the carpenter launched his boat to pull round the island, and returned in the evening, having discovered part of a small boat and pieces of a wreck, on the southeast part of the island.

November 1st, the weather continued fine. Several of our party went up the hill, and brought down fifteen albatrosses and a bag full of roots.

The 5th being the first hot day we experienced since our shipwreck, we took advantage of it for washing our scanty stock of

woollen clothes. We were delighted to find that the petrels had commenced laying eggs, being the most healthy and palatable of all our food.

On the 8th, fine clear weather, the wind being from the south-west and favourable for the carpenter making his intended trip to Tristan d'Acunha, all hands assembled on the beach to launch the boat, in which all our hopes centred. Being manned with nine men and the carpenter, they left us about 8 a.m., with our sincere prayers for the successful issue of their dangerous but laudable enterprise. Three cheers were given on their quitting the shore, and trusting in the goodness of Providence for their safe arrival, that they might become the means of rescuing their fellow-sufferers. We all now looked forward for a speedy release from our miseries and hardships.

November 10th, being a very fine day, and the wind favourable for the return of the boat, every one was anxiously on the lookout. Mr. Law and myself started early in search of seals for our dinner, and had travelled to the northernmost point of the island. Not being successful in our object, we sat down on a rock, lamenting our hard fate in being thus thrown on a barren island, far from friends and civilized society. While thus murmuring and unthankful for the mercies already received, my companion looked seaward and descried two boats approaching, which we soon discovered to be whaleboats; dropping our clubs, we hastened to communicate the joyful tidings to our suffering comrades, but in this we were anticipated by one of the seamen.

To give a description of the many happy faces would be impossible, and none but those who have felt a similar relief can imagine our extreme joy; congratulatory words and mutual shaking of hands hardly ceased; and when the boats landed, the scene was repeated with our deliverers, amongst whom we were happy to notice some of the crew who had gone in the boat with the carpenter. They reached Tristan d'Acunha on the evening of the 10th, and on making our misfortune known, the inhabitants most cheerfully manned their whaleboats (assisted by the carpenter's party), and came over to our assistance, bringing with them whatever refreshment they could. After the first transports of joy had ceased, we were informed that the inhabitants of Tristan d'Acunha consisted of ten men, one woman, and two children, of whom William Glass and John Nancavel were at the head, and chief proprietors of all the stock. The former arrived on the island in 1815, when the government at the Cape of Good Hope sent a military force, under Capt. Cloete, to take possession of it; but on the removal of the troops, Glass volunteered to become a settler, and purchased the cattle and stock from government. Nancavel was formerly in the dockyard at Simon's Bay. The others had arrived at different times, and were admitted on condition that they should assist the proprietors in procuring sea-elephant oil, seal skins, and in the cultivation of potatoes and other works of industry,

for which they were to derive an equal share of the profits arising from the sale of their produce. We were informed by Glass of the death of Bonaparte. An inquiry was made regarding the punt that left us on the 19th October, but no information could be obtained, and no doubt therefore remained as to its fate.

On the following morning, preparations were made for our departure from this dreary spot. The boats were launched, and waited outside of the surf for their respective passengers, for the conveyance of whom to the boats one of the punts was launched lest the surf should injure the whaleboats. Those who were selected for the first embarkation left about half-past seven o'clock, with the best and anxious wishes of those that still remained, for their safe and speedy arrival. This decrease to our party at first made us low-spirited, but the anticipation of an early return of the boats revived our spirits. We returned to our respective tents to breakfast; having now biscuit, salt, and potatoes, we made a most hearty meal; and anticipating an early emancipation, we killed one of our pigs, and regaled ourselves sumptuously. I need hardly say that the change from seal steaks to pork chops was very acceptable.

On the 14th, the wind being favourable, every one was anxiously on the look-out for the return of the boats, and about half-past ten a.m., they were discovered, and shortly after landed, bringing letters, descriptive of the comforts of those who had already reached Tristan d'Acunha. As the boats could not convey us all at one time, we agreed to draw lots who should go. Fortune favoured every one of the passengers, excepting Mr. Giberne and myself; and it was settled that as soon as the wind became favourable for their departure, they should start.

On Sunday, the 18th, about nine a.m., they once more set sail, leaving behind the chief officer, Mr. Giberne, myself, and two seamen for the third and last trip, which was accomplished on Sunday, the 25th, but not without much difficulty. The inhabitants of Tristan d'Acunha being anxious to take advantage of our carpenter's skill as a shipwright requested him to build a vessel of about ten tons, to which he consented. For this purpose, we were obliged to carry some of the planks from the wreck, the towing of which considerably retarded our progress. After nine hours hard pulling, we reached Tristan d'Acunha. Having now all met together, the captain and passengers unanimously joined in making an agreement with Mr. Glass for our future subsistence during the time we should be on the island, which was that each of us should pay him the sum of two shillings sterling per day, he furnishing us with such provisions as the island afforded. This remuneration exempted us from all labour; the seamen working for their subsistence, subject to the orders and requisitions of Mr. Glass and his companions. Their labour was chiefly in attending to the garden, digging, planting, and weeding potatoes, fishing and sealing, occasionally going out to shoot pigs and wild goats, both

of which were numerous on this island, and were introduced by the Americans in 1813.

On Monday morning, after breakfast, Messrs. Pepper, Patch, and myself went down to the beach; the first thing that arrested our attention was a board, nailed to a post opposite to a wreck, on which the following words were inscribed:—

"Here rest forty-five of the finest fellows that ever served their country, who lost their lives in the shipwreck of H. M. brig *Juliet*, Capt. Jones, on the 21st December, 1816. Mariners take notice not to anchor in this bay with the wind to the westward of N.N.W. or N.W."

I next examined the vessel which our carpenter had commenced, which he said would be finished about the latter end of February. Several men were employed in breaking up the remains of the *Juliet*, taking the best timber for building the new boat. Leaving the carpenter, we ascended the hill, and went to the cultivated part of the island, where we saw a field of wheat and barley, several fields of potatoes, all in a very flourishing state; likewise a flower garden, strawberry bed, peach and apple trees; the latter having been but lately planted yielded as yet no fruit.

Our habitation consisted of four houses, built with mud and stone, and three or four mud huts; the largest of the former, which—by way of distinction—we called government house, was built in 1815, when the troops arrived, and was the residence of the officers. It contained three rooms, and was now occupied by Mr. Glass and family, who consented to make the middle room into a general mess-room. The second house had two rooms, and was given up for the accommodation of the ladies; the third for the other passengers, and the fourth for provisions and stores. The men occupied the huts. The stock of cattle consisted of eight milch cows, ten calves, sixty-two sheep, of the Cape and Spanish breeds, four horses, and a great variety of poultry.

Having given a general outline of our habitation and manner of living, I shall now proceed to give a short description of the island on which we were wrecked.

The desolate island called Inaccessible is situated in latitude 37° 16′ south, and longitude 12° 16′ west from Greenwich; is about ten miles in circumference, high, bluff and barren, having a very forbidding appearance. The height above the level of the sea is about three thousand feet. The whole island is surrounded with a very strong seaweed; the beach is nothing but large stones and sharp rocks. A kind of reed grows on the island, about six or seven feet long, also trees of a middling size. The top of the mountain is nearly flat, with small lakes and swampy ground. The ascent is difficult and dangerous. Not far from the beach are three ponds of fresh water, besides several springs. In clear weather, this island may be seen from fourteen to sixteen leagues off; but during July and August, intense fogs prevail. Nightingale Island bears from Inaccessible about south, eight or nine miles distant, very irregular and barren in appearance, having a hollow in the middle, with small rocky isles at its southern extremity.

After a residence now of sixty days on Tristan d'Acunha, besides the much longer period previously spent on Inaccessible, on the morning of the 9th of January, one of the passengers said he had dreamt that he had seen a ship passing the island, and he requested that a good look-out might be kept. Several were, in consequence, on the watch, and, extraordinary to relate, a cry of "a ship in sight" was heard about eleven a.m. All hands hastened to launch the boat; she was instantly manned and sent to board the vessel Mr. Symers, the mate, went to announce our situation, and shortly after returned with the joyful intelligence that the captain would take us on board, and do all he could to make us comfortable.

The vessel proved to be the brig *Nerina*, Capt. Lauchlan, from Buenos Ayres, bound to the Cape with a cargo of mules. The brig anchored about two miles off shore. Our anxiety and impatience to get on board was so great that one of the boats was so full that her gunwale was not more than a foot from the water's edge. Upon our arrival on board, we were treated very kindly by Captain Lauchlan and the supercargo, Mr. Hertzog.

It will appear almost miraculous when I inform my readers that Mr. Hertzog had, the night previous to his seeing the island, dreamed that a shipwreck had taken place on it, and that he saw two boats filled with people coming off for assistance. This he related to the captain, while at breakfast, which induced him to steer for the island, little thinking that his dream would be realised the same evening. Another curious incident was that of the *Nerina* having sailed out of Table Bay, on her voyage to Buenos Ayres, on the same day and hour as that of our shipwreck.

January 10th, the captain fearing an approaching gale, and taking warning by the notice already mentioned, began to weigh anchor, and about noon the brig was under way for the Cape, leaving four seamen and some water-casks on shore.

Previous to quitting the island, we unanimously returned our grateful thanks to Mr. Glass and his party, for their kind and attentive conduct towards us; and many were the good wishes for the prosperity of this little settlement, which was now augmented by two of our crew having volunteered to become settlers, on the same conditions as before mentioned; and a servant girl (native of Bombay), consented to remain and become the partner of one of the islanders.

Running with a favourable breeze at the rate of seven miles an hour, we lost sight of the peak of Tristan d'Acunha in the evening. The crew and passengers on board amounted to fifty-two souls. This increase obliged Capt. Lauchlan to be very economical in water and provisions. We had not a blast of contrary wind the whole passage, during which perfect harmony and good humour prevailed, every one meeting with the greatest and kindest attentions from Mr. Hertzog, Capt. Lauchlan, and his mate, Mr. Hicks; kindnesses which, I trust, are indelibly impressed on the hearts of every one of us, and will ever be gratefully remembered.

We arrived at the Cape on the 20th of January, 1822, after a pleasant and speedy passage of ten days, and landed in our rude island dress—red jackets, shirts and trowsers, seal skin shoes and hats—and were soon surrounded by the inhabitants, to whom we became objects of great curiosity. We were most kindly received by those to whom Mr. Hertzog introduced us; and I shall ever remember, with gratitude, the hospitality, kindness, and attention we experienced from Mr. H. and his friends at the Cape. The seamen were provided with quarters, by government, in Somerset Hospital until such time as they could procure employment in some ship.

The realization of two dreams connected with our deliverance has already been related; and I shall close my narrative with that of another, by stating that, the night previous to our arrival in Table Bay, Mrs. Hertzog dreamed that she saw the *Nerina* coming in with many passengers on board dressed in red.

AN ARGUMENT.

The fool hath said in his heart "There is no God."—PSALM 53, v. 1.

A pow'r pervading time and space,
Our feeble reach transcends;
A goodness of as large embrace,
Man better apprehends.

This pow'r, this goodness, unconfin'd
Below, above, abroad,
Declare the one all-ruling mind,
Supreme, Eternal God;

Author, Disposer, Master, Lord,
Swaying, sustaining all,
His creatures feasted at *his* board,
And waiting on *his* call.

Design, connexion, order, aim—
Harmonious all around;
Yet hear God's master-work exclaim,
"A God is nowhere found!"

Oh! caviller of weak pretence!
But no,—he boldly lies,—
Oh falsehood! that the baffled sense
No Deity deseries!

What would he? Lo! the teeming earth,
The seed prepar'd to strike
Root downwards, upwards bringing forth
Each diff'ring seed its like—

Fit food for insect, beast, and bird;
Of every several kind,—
For each its food,—and, instinct-stirr'd,
They seek, and lo! they find!

What would he? Lo! the genial sun
That warms the pregnant clay,
Swelling the germ, whose juices run
To greet the quick'ning ray,

Till soon forth breaking into light,
Unfolding leaves and gems,
It draws sweet air, while dews at night
Freshen its languid stems!

What would he? Lo! the circling air
Impalpable, unseen,
Embracing earth, through bolt, through bar,
Pouring its treasures in.

Servant of endless tasks! abroad
Scatt'ring the solar beam,
Athirst now lifting into cloud
The vapour from the stream,

Floating and wafting on its breath
The vivifying stores,
Till where the plain lies parch'd beneath,
The travell'd bounty pours;

Or, gather'd on the mountain's brow,
In misty show'rs descends,
And, trickling through the glen below
New floods to ocean lends.

Mysterious circle! still renew'd—
Life's busy, endless source—
Else dead, and nature's purpos'd good
Arrested in its course!

"Aim"—"purpose"—wondrous element!
Fulfill'd in thee alone,
What diff'ring aims we witness blent,
How many yet unknown!

Say 'twere withdrawn, this single boon,
Unthought of as unseen,
That lit the skies, that warm'd the sun,
That cloth'd the earth with green;

That, borne aloft on eurious wing,
Wafted the soaring bird,
While its soft animating spring
His joyous bosom stirr'd;

And, oft as the exulting throat
Pour'd rapture or desire,
Mute else, gave music to the note
Upon a ready lyre.

The tenants of the crystal wave
Its pensioners they too;
Else chain'd, and idly arm'd to cleave
Their own deep world of blue!

Thyself—nay, *thou*—imperial guest!
Complacent lord of earth!
Owning no kindred to the beast,
Vaunting diviner worth.

The port ereet, the awful brow,
The majesty of mien,
The look, to which all ereatures bow
That speaks a soul within.

Proud man! and he may well be proud,
The stamp divine eonfest,
And yet, all gloriously endow'd,
A creature, like the rest:

Untun'd thy frame divinely strung,
Its subtile structure vain,
The heart's strong pumps, the tissued lung,
The massy-volumed brain;

The agile tongue, familiar train'd
Thought's rapid phase to spell,
The volute ear, its parehment strain'd,
Vault, aperture, and bell;

The tube-wrought throat, the cavern'd chest,
The smell's fine avenues,
The erimson tide, that ne'er at rest
Its bounding course pursues;

Crimson no more, of deepen'd dye,
It lags, a troubled rill;
Denied the wonted pure supply,
The engine's stroke is still.

Ye ambient floods! ye liquid fields!
Ye viewless magazines!
Whose fleecy depths the sunset gilds,
Piercing your amber screens!

Whence drew ye your divided stores
In balmy draught combin'd?
How knew ye, for a wealth like your's,
That plant and creature pin'd?

Light, sound, warmth, life, thought's subtile birth,
Dependence on you share,
With you a kindred joyous earth,—
Without,—dark, silent, bare!

Oh! if the great awak'ning Voice
Which pierced the void, and wrought
Your chosen ministry of joys,
Back summon'd it to nought;

Though countless still the wonders left,
And this, but one, withdrawn,
To earth, of all her life bereft,
What, then, the solar dawn?

Terrific sunburst! tenfold night
Should wrap the vacant sky,
And dying nature loathe the sight
Of that cold glaring eye!

Fragrance and beauty—movement, sound,
Warmth, daylight, pulse are gone—
Unbroken stillness, gloom profound,
Attend the skeleton!

Beings! relations! countless throng!
The hard, the rare to find—
Your full *infinitude* among,
Is *one* that's undesign'd,

Inapt, imperfect, or astray,
Or stranger to the rest!
Strict harmony! yet, day by day,
Man views it unimpress'd.

But what though giddy wealth forget,
Or impious pride disclaim,
Remains the great account of debt,
The living God the same.

Mowbray, June, 1857.

A GOSSIP ON RECENT INVENTIONS.

BY DR. J. B. HAMMERSCHMIDT OF VIENNA.

LAST year, the spirit of invention was pre-eminently active, and has brought to light numerous improvements. An account of some of them may be interesting to readers at the Cape.

Let us begin with toilet-glasses—the new double-reflecting ones—so admirably calculated for the full display of female beauty. The idea of Nature unadorned has been quite exploded in civilized society. Our belles are necessarily compelled to devote no inconsiderable portion of their time to the toilet, and of that process not the least uncomfortable was that devoted to the arrangement of what, we believe, is called the back hair. You remember how my lady before going to ball or party, took up a looking-glass into her snow-white, delicate hands, and placed herself in front of the toilet mirror in the most extraordinary contortions and acrobatic positions, all this time holding up the said looking-glass behind her charming head, till at last she got the coiffure into the focus, as opticians call it. Now, instead of all this barbarous torture, you have in the new invention a rod of metal simply attached to the mirror, in front of it. On the further extremity of this rod another smaller looking-glass is made to move on a knee-joint; both glasses so connected may be readily placed at whatever angle you may choose. Well, fancy the contrast between this elegant and simple contrivance, which does away entirely with all the former inconvenience; and say whether this is not a laudable little invention, both ornamental and useful, and highly creditable to the gallantry of the inventor?

Or take another invention which enterprise may turn to profit. There is, for instance, a composition for water-proofing,—in this moist wintry climate of South Africa, perhaps not out of place. Take two pounds of alum and dissolve it in four gallons of water; separately dissolve the same weight of acetate of lead in the same quantity of water; mix the solutions. Sulphate of lead will now be precipitated

in the form of a powder. Then pour off the solution, and into it plunge the tissue to be rendered waterproof; wash and rub it for a few minutes, and hang it in the air to dry. If there should be any rheumatic person, in this otherwise favoured colony, wishing to waterproof himself for the rainy season, I shall be delighted to have herewith tendered to such sufferer my humble services for the aforesaid purpose. I can warrant the complete efficiency of the above. It does not injure even the most delicate tissue.

There again is another object—gas-light. A very simple trick has been discovered, advantageous for the consumer, and not injurious to the gas producing company. You only put a small blade of metal between the gas orifices of the burner. This will double the light without the pressure being increased, or more gas consumed. It is a very useful contrivance, which I would hereby recommend to all the gas-consuming public.

Then we have new shades for lamps and gas-lights; prisms are applied instead of the hitherto usual cylinders. The effect is quite magical, and ladies especially will, everywhere, admire this cheaply won brilliancy of lighting up their drawing-rooms.

The fact that oil from the avocada pear-tree—a highly oleaginous fruit—has been made to illuminate as well as sperm oil, and also made suitable for the manufacture of soap, after bleaching with chlorine, is, I dare say, a hint which may be kept in view, when we are amidst a variety of similar plants which may be easily rendered available for such purposes, and which cannot but be a profitable concern. As oleaginous plants—and there are many here—always contain an acrid principle, and much mucilage too, treatment with a little sulphuric acid, as well as, perhaps, bleaching with chlorine, will therefore be required. *Sapienti sat.*

Then another invention is Bessemer's new iron smelting process, which last year promised to produce quite a revolution in the important manufacture of iron and steel. We all know the experiment—shown to us when schoolboys—that red-hot iron-wire would burn with flame when immersed into oxygen-gas. There was the invention in a nutshell, but none thought of performing what still was so near, viz., to cause the carbon of the iron to burn by itself, subjected to the action of oxygen. The simple ingenuity of this idea has not yet been made practically to answer so well as at first was expected. Much fear is entertained of the *quality* of iron thus burned in a single operation at once into steel. Its value, therefore, is still a question of dispute and uncertainty,

although large expenses have been incurred to secure patent rights for this new process in all countries where patent laws exist. Yet I go astray from my present design, to introduce to you some more novel features in different branches of useful knowledge.

Turning now to another object, which generally is not well understood—how to arrest fires. I have often wondered that it was not long ago well known that to supply the flames with water alone is something like supplying them with oxygen to make them burn the better, instead of lessening them. By all means, never apply water alone; impregnate it with common salt and potash, or saturate the water with clay, chalk, or slaked lime. Take whichever of these stuffs you have at hand; but do not pour buckets of unmixed water just to feed the flame rather than to extinguish it. Consider the reason why such mixture is so strongly recommended. If water is impregnated with the salts abovementioned, it will rapidly evaporate, leaving behind the salts or earthy stuffs, which, being brought to a state of calcination, will form a covering sheet at the *root* of the flame. All this is clear as clear can be, yet it is but seldom, if ever, practised.

Let us now pass to another more attractive matter—the most recent developments of photography, an art by which, as the advertisements very poetically have it,

> "From those whom we fondly cherish
> We may secure the shadow ere the substance perish;"

or, more prosaically, an art by which, at any moment, the fondest lover can secure a true copy of a possibly false original: which pleasing convenience was out of the question in bygone years, when either portrait painters or face-makers alone could be resorted to. There are photographs taken now on gutta-percha, which is the most novel process. And there is another new composition, known as Mayall's artificial ivory, made from glue (gelatine) in acetate or sulphate of alumina (alum). There is also another—the so-called oxymel process, in which vinegar, water, and honey take the leading part. Among the most recent distinguished subjects who have sat for their portrait before the photographic camera has been the moon herself. The bottom of the sea is also dangerously threatened to be pourtrayed by similar means.

To conclude with, there is for medical practitioners a most excellent dressing, well worth notice, namely, glycerine, for wounds and fractures, to be applied, if there should be bleeding, with tannin. It excels collodion and all the other hitherto employed dressings.

Malaria is now generally considered to be chiefly caused by the decomposition of a plant *(chara)* and the formation of carbonate of lime and putcrine or putera—a miasmatical effiuvium. It has been also described as an invasion of the alimentary canal and the small intestines, by hordes of minute larvæ of insects belonging to the genus fly (?) Tar-water, salt-water, castor-oil, camphorated alcohol, aloes, and camphor constitute the curative internal and external treatment.

Finally, I would just mention an apparatus for cooking without fire, which could be made use of where fuel is out of reach. It consists of two flat bottomed, very thin, metallic vessels, one fitting into the other, and so arranged that all the heat which is caused by water, when brought in contact with quicklime, or by sulphuric acid, with shells, may be intercepted from and act upon the whole surface of the bottom of the upper vessel. By this agency, chops, steaks, eggs, and such like, have been readily cooked without any ordinary fuel whatever.

SPORT IN INDIA.

To the Editors of the *Cape Monthly Magazine.*

Gentlemen,—Will the accompanying account of a week's hunting in the neighbourhood of Nagpore be of any interest to the readers of your Magazine? It is an extract of a letter from an officer in the Nizam's cavalry, to his cousin, and was never intended for publication. Having however been favoured with a perusal of it, I begged permission to copy it for your benefit; but being unacquainted with the handwriting and the Hindostanee names of many of the men, places and instruments alluded to, I have been obliged to omit some, and guess at others; and for the benefit of those more ignorant even than myself in Indian matters, I have added a few explanations.

I need scarcely add that the facts here stated may be relied on as correct, and affording a pretty good idea of Indian sport.

I am, &c., E. L. Layard.

I went out to the Wurdah River, near Nagpore for a week's hunting, and in six days I bagged eight tigers, two *nhilghie*,* and a boar, but very nearly got my own dose from a *man-*

* A fine antelope, which inhabits the dense forests of India. It is called *nhilghau* from its fine colour. *Nhil* in Hindostanee signifying "blue," hence the term "Nhilgherries" or "Blue hills."—E. L. L.

eater. On the 18th, I set out in my cart for Muchee, forty miles. I was lucky enough to come on two tigers in some cypress. One charged me, and was felled with great rapidity, two bullets in the face and neck causing him to moderate the "rancour of his ire." I then pursued the other, a tigress; after some time, put her up, and off she went at a gallop; I made a very neat shot at about one hundred and twenty yards, and dropped her, with a ball through the heart; she gave two tremendous springs in the air, on receiving the shot, and fell dead. The coolies were aghast at the velocity with which these gentry were arranged. On beating back, I put up a boar, remounted, gave chase, was charged, and converted the infuriated pig into pork in a little less than no time, though my horse was much torn in the encounter,—the ground being nearly unrideable.

Next day, only saw some *nhilghie*, but I bagged two of them, with one ball each. On the following day I had a buffalo killed,* and found his slayer, a young tiger; I hit him first—a long shot—through the shoulders, and he pulled up; I beat for him, and not knowing exactly where he was, came right on the beast, and he charged straight at us. Two bullets in the face and neck did not stop him, and before I had reloaded my gun, the tiger got up to the *hattie*,† who was as steady as a rock, and put his paw on his trunk. At this instant, before he could inflict a wound, I leant over, and firing close to the elephant's head, rolled the tiger over with a ball in the spine. A close shave, and a very plucky beast the tiger was.

Two days later, after much beating, found an enormous male tiger; on my hitting him, he ran off; but suddenly charged some object in the bushes, about one hundred and fifty yards from me. I could not see what it was, but as there was a ravine between us, and I could get no closer, I gave him my right barrel This did not stop him, and next instant I saw a man emerge from the bushes and come towards the tiger (it appeared afterwards that this was a deaf old *goad*, ‡ who was wandering about in the jungle; all my coolies were safe on a hill). The huge beast rushed

* G. N. here alludes to a practice of putting a live animal as a bait for the tiger,—so further on, he says of another tiger "he was a 'chore' (or thief), and not to be got by picketing."—E. L. L.

† *Hattie* means a riding elephant, off which all this kind of shooting is done in India.—E. L. L.

‡ Cattle keeper.

at him, struck him down, and was in the very act of tearing him to pieces before my eyes, when, seeing there was no hope for him, I determined to fire, even at the risk of killing the man,—the shot being a very long one, one hundred and twenty or a hundred and thirty yards,—I blazed away, heard the ball strike bone, and feared it was the man's head, but to my delight, I saw the tiger roll off the nigger, with a hideous roar, and plunge into the ravine. The *goad* came staggering towards me, and proved to have only some rather nasty flesh wounds, which I soon assuaged with arnica. We found that my conical ball had struck the tiger on the lower jaw, and shattered it to pieces, carrying off one of the fangs and smashing the other. Was not this a lucky shot? the only one that could have saved him. I am now looked upon as a sort of essence of six William Tells, by the populace about there. See what luck is; but I must claim credit for being cool at such a moment. I now proceeded to settle the tiger, which, on seeing me, rushed at the *hattie* with furious roars; and, when he came within twelve paces, I floored him with a ball in the neck. He ran down the *nullah*, and then came at me frantically, up the bank. My first bullet, at fifteen paces, staggered him as he rushed forward, and my left barrel dropped him dead "in his tracks." Such a splendid fellow! height, four feet three inches; his skin measures twelve feet three inches.

Next day I went out for a ferocious "man-cater," called the *panoura*, or *paura obagh*, from his having a crooked foot. As he was a "chore," and could not be got by picketing, I started at dawn and intercepted him, and, as it afterwards turned out, four other tigers on their way to the hills. I had no idea of this at first, and was astonished to hear the darkies calling me in every direction. However, a tigress bounced out and was off before I got hold of my gun; I then set to work steadily and proceeded to where I heard Toby barking, and could see nothing at first, but at last spied a tiger twelve feet from the ground, in the fork of a tree. I put a ball through his heart, and just one under his ear, to make sure, and left him hanging; he fell dead to the ground. I then rushed off to where flags were waving; suddenly, a tigress sprang out of some bushes and went off at a gallop. I shot her through the heart with my right barrel, and she fell dead without a roar. I left her and proceeded back to where I heard shouts, and, after some time, came on a small tigress; she was sitting on her haunches looking at me, when I killed her with one ball in the chest. I look upon three tigers, with one ball each, as a *feat*.

I now went after the *paura* or "crooked foot," an immense "man-eater." I put him up after about an hour's beating (of course, no coolies could be got to go into his jungle); I hit him first in the tail; afterwards I put two bullets through his shoulder, and he pulled up under a tree. I came up and floored him with four more bullets, and he lay as if dead. Supposing he was "polished off," we were going up to him, when, suddenly, up jumped the huge beast, as if untouched, and rushed at us. At ten paces, I gave him a conical in the neck, and at five, I covered his head, and pulled the trigger of the left barrel. *The gun missed fire!* Before I could snatch another, the tiger came up, struck the *hattie* a tremendous blow between the eyes, and, seizing him by the trunk with his teeth, pulled him down on his knees. I was nearly shot out of the *howdah;* but, luckily, though my *mahout** and *khawas* were both yelling, I was quite cool, and saw that it was kill or be killed with such a monster, as I must inevitably be thrown to the ground shortly. I accordingly leant over, and somehow, in all the confusion, tiger roaring, elephant screaming, and fighting with his tusks, and niggers yelling, managed to put two bullets through the tiger's shoulder. He let go the trunk, bit the *hattie* on the left shoulder, came round to the right, bit him through the elbow, and pulled him over on his side. I was actually hanging over the tiger, when having pitched away my empty gun, I found a fresh one, I held on to the *howdah* with my left hand, and raising my gun, as a pistol, in my right, put the muzzle close to the beast, and rolled him over with a shot through the back. The elephant arose and ran off trumpeting, and the "man-eater" rushed off roaring. After going a short distance, the *hattie* tore up a tree, and pitched off his *mahout.* This was nice. Here was I going at full speed through the jungle on a maddened elephant, with no driver. I saw there was but one chance; so, disregarding the remonstrances of *Meerza*, I clambered over the front of the *howdah*, sat on the *hattie's* neck and *did mahout.* Unluckily, I had no *hankous*,† so had nothing to stop him with, and all my tugging at his ears proved ineffectual, the more so, as my spurs were running into his neck. I therefore got back into the *howdah*, and awaited the final shock, which soon came. The elephant made for a big tree, and went bang against it,

* Mahout and khawas, both native servants; the first the elephant driver; the office of the second I don't know.—E. L. L.

† *Hankous*? I think this is the word. It, however, means the sharp iron hook used in driving the elephant.—E. L. L.

the *howdah*, guns, and all weighing about three hundred lbs., with me in the middle of the lot, were swept from the brute's back, and hurled to the ground from a height of ten feet. The *howdah* was broken all to bits, even the very seat I was on was in pieces, yet not a bone had I broken. It was a miraculous escape. The elephant ran off twenty-two miles, has thirty wounds or so, and is so ill I have to leave him in the jungle. After my fall, though bruised, I was able to reload my guns, and go to look for the fiend of a tiger, on foot: I saw him lying in some grass, fired into him—no reply, so up we rushed, and the big villain was my own. Skin, twelve feet six inches; height, four feet two inches. Fancy such a monster!

Thus ended my *shikhar** as you may fancy; but eight tigers in six days is a good bag any where.

G. N..
Capt. in the Hyderbad Contgt. Nizam's Cavalry.

OAK GRAFTING.

Upwards of one hundred and fifty distinct species of the oak tree are known to botanists. They occur, indigenous, all over the world, excepting South Africa and Australia. At the Botanic Gardens of the Isle of Bourbon, however, there is an oak from Madagascar.

Their universal utility, and striking beauty, have made them great favourites; and the *Quercus Robor* is the never-failing indicator of European emigration in South Africa. We have here only one variety of the English oak—the *Pedunculata*. The *Sessiliflora* is a much handsomer tree, and, growing much faster, is a more advantageous kind for the planter. Its timber is quite as good as that of the *Pedunculata*. The roof of old Westminster Hall is built of it. An attempt should be made to introduce this variety.

We have alsothat most useful of trees—the cork, an evergreen oak, in the garden of Mr. Elliot in Cape Town, and young plants at the Hon. Mr. van Breda's, raised from its acorns. There are several of these trees at Stellenbosch, grafted on the common oak, as well as cork trees imported from St. Helena.

We have thus materials enough for raising immediately one hundred thousand cork trees by grafting on the common oak; and trees so treated have been known to attain a height of eight feet in two years' time.

* *Anglicè*, hunting.

The cork is the hardiest of trees, and spreads its roots as far as a pine in search of food.

We have also an evergreen oak, at Constantia, from America, and two or three species from Nepaul: which last ought to be held in great veneration, as having been planted by the celebrated botanist, Wallich, in the garden of Mr. Stuart, at Wynberg. These ought also to be multiplied and forced, by grafting on strong stocks of the common oak.

All known oaks are indigenous to climates resembling our own, and will no doubt succeed here readily. Attempts should be made to introduce them, especially such species as are of well-known utility,—as the *Q. Infectoria*, which bears the galls, when its branches are pierced by an insect. The insect is found here, only waiting for the oak to furnish another useful article to our commercial exports. J. V.

LITERARY REVIEW.

This month, we have room for only a few passing notes in the shape of literary review. The new accessions to the Public Library, by the *Tynemouth*, have not been very numerous. Besides the periodicals and blue-books, the following is a complete list:—

English Cyclopedia, Biography, 4th vol.; Tom Brown's School Days; Dynevor Terrace; Glenwood Manor-House; May Hamilton; Robertson's Sermons, first and second series; Hansard's Debates, 144th vol.

Of these, by far the best is *Tom Brown's School Days*, by an Old Boy. It is a fresh, delightful, charming book. Its pictures of school life at Rugby, in the palmy days of Arnold, are graphic and genial, and have all the charms of nature, simplicity, and reality combined. Its style reminds one of the clear, sparkling style of the author of *Lorenzo Benoni*; but it has superadded to that the genuine smack of nervous vernacular English. The "Old Boy" is evidently one of the many old boys, who, now in diverse regions all the world over, venerate, with cordial love, the memory of the wise and good head-master of Rugby school. The book is gracefully "dedicated to Mrs. Arnold, of Fox Howe, by the author, who owes more than he can ever acknowledge or forget to her and hers."

The two volumes of *Sermons* received are from the pen of the late Rev. Mr. Robertson, of Brighton. The estimation in which they are held at home may be seen from the fact that this is the fourth edition published within as many years. They do not form a connected series on any particular subject; but they are distinguished, each by itself, by close thought, great elegance of style,

and occasional touches of true poetic feeling. We presume, however, that Spurgeon's *Sermons* might be a more acceptable accession for the general community.

Little Dorrit has come to a close. This month a double number has been received, and the work is now complete. The concluding chapters, notwithstanding all the remonstrances of the critics, are as offensive in their peculiar mannerisms as any that preceded them. The interest of the plot is well sustained to the *denouement;* only that *denouement* is rendered in some parts of it perplexingly mysterious. Of course, all the characters come trooping on to the stage in crowds, and severally receive their respective congées and mittimuses. Little Dorrit and Arthur Clennam we part with, all going merry for them as a marriage bell; Doyce returns home, from where "they do want things done, and find a man to do 'em, medalled, and ribboned, and starred, and crossed, and I don't-know-what-all'd, like a born nobleman," as Mr. Meagles joyously narrates; and Pancks becomes chief clerk to the prosperous firm of Doyce and Clennam, and afterwards partner in the house; and Rigaud Blandois goes to his place, as he deserves, being crushed and buried under Mrs. Clennam's old sombre mansion, which has been blown up, or tumbled down,—it does not appear very clear which,—by a *deus ex machina*, of which Mr. Dickens has vouchsafed but little information; Mr. Flintwinch flies the country; and Mrs. Clennam retires into the outer darkness of her own remorseful existence.

With all its faults, *Little Dorrit* has made hits which will secure its immortality. The Circumlocution Office will never be forgotten so long as its prototype exists in Downing-street or Whitehall; nor the Barnacles so long as a Circumlocution Office exists to provide them shelter. Mr. Merdle will be handed down to posterity with the infamy of Sadlier and Cameron, and the banks of Tipperary and the Royal British. Little Dorrit will be long remembered as one of the most delightful creations of fiction; and as a thing of beauty, will prove a joy for ever. The scene Dickens has given in the eighteenth number, where Little Dorrit visits Clennam in the Marshalsea, adorns human nature, and in the charming simplicity of its touching pathos, reminds one of the very choicest of Dickens's palmy productions in days gone by. On the other hand, the sooner Mrs. Clennam will be forgotten, the better—a libellous carricature as she is on humanity itself. As a type of hyper-Calvinistic fatalism, for which Dickens has intended her, the picture is utterly unworthy of an artiste so well endowed to hold the mirror up to nature. It is as false as any he has ever drawn in that department, which, upon the whole, is saying a good deal.

Mr. Dickens concludes the preface to *Little Dorrit* thus:—

"In the preface to *Bleak House*, I remarked that I never had so many readers. In the preface to its next successor, *Little Dorrit*, I have still to repeat the same words. Deeply sensible of

the affection and confidence that have grown up between us, I add to this preface as I added to that, 'May we meet again!'" To which the "many readers," as in duty bound, will loyally respond with a grateful Amen.

We are sorry to find that recent contentions among the managers of the *North British Review* have run so high, that the work itself is temporarily suspended. An article in a recent number, written by Isaac Taylor, as a critique of Chalmers' Works, has, from the breadth and expansiveness of its views, proved distasteful to some of the sturdiest champions of stern Scottish orthodoxy. A schism has arisen in consequence; and the general public will only hope that in any future change in the editorship of the *Review*, a hypercritical orthodoxy may not be purchased for them at the extravagant expense of excessive dulness.

The present editor of the *North British* is the Rev. Professor Fraser, of the Edinburgh University, and among its contributors, were Isaac Taylor, Kingsley, Principal Tulloch, of St. Andrews, and a combined host of distinguished talent from all the liberal sections of the several churches.

COMMERCIAL REVIEW.

Business transactions during the month which has just passed away have been more than usually dull, unrelieved by any incident worthy of notice, except the circulation of a report that wines, the produce of this colony, had been materially affected in the London market by the arrival of a parcel of about 300 pipes. Subsequent intelligence has entirely dispelled the fears of those in the trade who were interested, and believed in the possibility of such a contingency. To those who are acquainted with the immense consumption of foreign wines in England, and the quantity of our own prepared for re-exportation under more favoured names, and who, moreover, have watched the falling off in the productions of the Continent, it was evident that no fall of any importance could, at that time, have taken place attributable to the quantity imported. The colony has reason to fear, as we have before pointed out, that the quality of the article sent from here was not sufficiently regarded, and that an opportunity would be lost of presenting our wines to the world on as favoured a footing as those of the Continent. It is generally reported that wines of the tender age of two to four weeks have been dispatched from this country during the present season; and if we could be satisfied that such has been actually the case, we should not hesitate to do a public duty in exposing the names of the exporters in our pages.

The decease of one of the principal merchants in this city, who was justly esteemed for his amiable and sterling qualities, and who

leaves no superior as an accomplished gentleman among his colleagues, has thrown a sad gloom over the mercantile world.

Amongst the arrivals worthy of notice is to be found the *Gazelle*, with a cargo of 1,959 bags flour and 568 bags wheat, from Adelaide, South Australia. It is now some years (prior, in fact, to the discovery of the gold fields on that vast continent) since we had a regular supply of breadstuffs shipped from that quarter of the globe, and we hope that our brother colonists will benefit by the revival of this branch of trade. We cannot, however, hesitate to declare that the development of our own and the adjacent districts, by increased facilities in obtaining labour, and cheap and rapid transport, should properly divert this supply from our shores before long, and teach us to become ourselves exporters. There has been another rise in Cape brandy, and wine has advanced considerably in our market. In dried fruits, the price has also improved, and the quantity coming in is very small. Hides and skins maintain their prices. Wool in the Port Elizabeth market has been slightly influenced by the fall reported from England. Ostrich feathers are in good demand Oats and oat-hay are realising high prices, and the new crop is anxiously looked for, even as green forage.

The separation of our commercial interests from those of our neighbours of the midland and frontier districts requires the serious attention of merchants in every part of the colony. We are unable to give any information upon this occasion with reference to the customs' duties which each division would have to bear; but we think that the value amount of necessaries which are furnished to the east is very considerably underrated. The Cape and Malmesbury districts have, for years, entirely supplied the frontier with their daily bread; whilst Stellenbosch and the Paarl have, for the greater part, furnished them with their requirements of brandy and wine, of which the consumption is very large. Since the settlement of farmers in the country about Queenstown, a small portion of their supplies is derived thence, and there is every probability of a great increase in their productions. From George *via* Mossel Bay, large shipments are occasionally made of the same articles; and grain from the Breede River is also shipped to Algoa Bay and East London. An attempt was made to obtain returns of all produce, merchandise, &c., shipped from the several ports coastwise, but was found impracticable, owing to the inconvenience to which those engaged in the trade would have been subject. As a statistical reference, it would materially have assisted the discussion of separation.

Our market for imports continues without material alteration. There seems a greater firmness, however, in Mauritius sugar and caper teas, as well as in coals.

Freights are without much alteration. We hear of a charter from Algoa Bay to Amsterdam @ 1d. per lb, and of inquiries being made for ships from Calcutta to the two principal ports of this colony. Money has been, and is, unusually tight for the

season of the year; but is expected to be more plentiful in consequence of the reported determination of the naval department to pay for their ordinary supplies in special exchange on London, for first class paper, @ 90 days, at one per cent. discount.

The arrangements are not yet completed for initiating the introduction of immigrants, and the construction of railways; but the colonists are anxiously awaiting their promulgation. It is desired that the former shall be entirely managed by special officers, appointed from here. The strong feeling shown in Australia against the employment of the Government Emigration Commissioners in England, or, indeed, of any but those selected for their knowledge of the requirements of the respective colonies, is shared in by the inhabitants of our own.

[Since the preceding paragraph was in type the Government instructions for the immigration scheme have been published, and are such as will probably give general satisfaction. The scheme, as a whole, will be conducted by special Immigration Commissioners appointed from the colony, and of whom one will be the chief and responsible officer.]

MONTHLY REPORT ON THE S. A. MUSEUM.

The donations to the Museum have been less frequent than usual this month, but the appearance of the collection has been considerably improved by the introduction of several fine specimens, which have been recently mounted. Amongst them, Commandant Linde's noble ostrich stands pre-eminent, and attracts universal attention. To the ladies, in particular, its beautiful white feathers prove an irresistible incentive to touching; and, in spite of a request upon a *blue* paper on the *white* wall, the attendant has considerable trouble in drawing the attention of our fair friends to the fact, that "Visitors are requested not to touch the specimens."

After an inspection of this fine example of the apterous group of birds, it is well worth a stroll up our beautiful oak avenue, to compare it with the Australian type, the Emeus, now quietly stalking about His Excellency the Governor's gardens. Insensibly, the mind wanders back to that huge bird, which the mighty genius of an Owen constructed, by inference, from the fragment of a bone picked up on the far-away New Zealand shores, until bit by bit, and bone by bone, parts of other birds were found, and a real structure rose to prove the correctness of the bold, but skilful anatomist.

The Museum is fortunate in possessing another example of the wingless birds, namely, the *Kiwi-kiwi (Apteryx Australis)*, presented by John Ross, Esq. This singular bird stands, for the present, in the first case, near the windows looking into St.

George's-street, the ornithological collection not being sufficiently complete to admit of its classification with any correctness, and the Museum not possessing sufficient room to admit of it. This I sincerely trust to see, at least, commenced by the end of another year, and in a building worthy of the rapidly increasing collection.

The *Kiwi-kiwi* is, and always has been, a very rare bird—its nocturnal habits seldom causing it to be visible, and its incapacity for rapid movements, essential to safety, allowing it to fall a ready prey to the stealthy native, who esteems it as an article of food.

A fine group of the Honey Ratel *(Ratelus Melliora)*, another of the "Strand Wolfe" or Fuscus Hyæna *(H. Fusca)*, and a third of the Egyptian Ichneumon *(I. Pharonis)* have been introduced into the Museum. The two brilliantly coloured examples in the first group were sent by our indefatigable friend, Mr. Arthur Jackson, of Nel's Poort, in the post-cart; the dark one, from Namaqualand, by Mr. J. B. Currey. The hyænas both came from Mr. van Reenen, of Groenekloof; and to Dr. Graf, of Somerset (West), we are indebted for the finest of the Ichneumons. Dr. Graf has also sent us, this month, a fine specimen, though somewhat injured, of the wattled crane *(Grus Carunculata)*, shot near Hottentots' Holland.

A good-sized fossil head of the *Dicynodon Tigriceps* was left at the Museum by a French missionary (?) who, however, did not give his name, or the attendant, not understanding French, could not catch it. If this should meet his eye, I shall be obliged by his informing me to whom the institution is indebted for such an interesting fossil, and also as to the locality whence it came. I trust, also, other friends who read this, may take the hint, and, when leaving anything at the Museum, leave also their name, and such particulars of the specimen as they may know.

It may not be uninteresting to some of our subscribers to know that the institution has been useful in contributing to the translation of the Bible into Sesuto. Mr. Arbousset, the French missionary with Moshesh, has visited the collection, accompanied by the chief's sons, two of whom are now in Cape Town, and has pointed out to them the birds and animals alluded to in the Scriptures, and taken down from their mouths the names by which they are known in their country.

Mr. Arbousset was unable to do this at his mission station, in consequence of being himself ignorant of the birds or animals alluded to. With the specimens, however, before him, as pointed out by myself, he was enabled to show them to the young men, and get from them the native names. We have agreed to go over the whole of the zoology of the Bible, even from the cedar of Libanus to the hyssop on the wall, in a similar manner, as it appears that the natives have no idea of any *generic* division of either animals or birds; each antelope, hawk, or owl, having a name peculiar to itself and inapplicable to another of the same *genus*.

I am happy to be able to announce the arrival of an insect cabinet,

received from England by the *Tynemouth*, steamer. We shall now be able to exhibit, with proper effect, the beautiful insects from Brazil, presented by Messrs. Rutherfoord and McDonald, and the colonial insects, presented by Mrs. Döhne, or collected by Mr. Fairbridge and myself in this neighbourhood. I hope that, before the end of the next month, I shall have completed the arrangement of this most fascinating portion of the Museum.

Before I conclude, I would beg our country friends—our YOUNG friends in particular—to remember that the season for birds' nests and eggs is rapidly approaching, and that the collection is but poorly supplied in these interesting branches of zoology.

Some of my readers may not perhaps be aware that the best and neatest way to blow eggs is to pierce one hole in the side with some sharp instrument, and introduce a blow-pipe or straw into the aperture and blow out the contents, which escape between the instrument and the sides of the hole. The best drill to use is one manufactured on purpose, somewhat like a small counter-sinker in a set of "bits." Mr. Rawbone, the gunsmith, has a pattern, and makes to order; the blow-pipe may be purchased for one shilling and sixpence at almost any hardware shop.

On the 23rd of April last, two books—"Cuvier's Shells," with plates, and "Cuvier's Index and Classification of the Animal Kingdom"—were purchased for the Museum, at Mr. Caffyn's book sale, by Mr. Brittain. They were, however, removed in the confusion, by some person, who is requested kindly to return them, either to Mr. Brittain or to the Museum.

E. L. LAYARD.

NOTES AND QUERIES.

NOTES.

SHIPWRECK OF SIAMESE MANDARINS AT CAPE AGULHAS IN 1686.—Our readers will remember that a narrative of the shipwreck of some Siamese Mandarins and their *suite* at Agulhas was given in the first two numbers of this Magazine, from Father Tachard's *Voyage to Siam*. In Sir John Bowring's recent work on the *Kingdom and People of Siam*, there is a letter from the present King of Siam, in which His Majesty gives a sketch of the present Siamese dynasty, and derives his descent from the head of the Siamese embassy to France, wrecked at the Cape. It will be observed that there is some confusion in the statement. The ambassadors to *Portugal*, who left Siam in 1684, were wrecked here in 1686, and the survivors of the expedition arrived at Siam, *viâ* Batavia, a short time before the arrival of the second French mission, The ambassadors to *France*, who, upon this, left Siam in 1687, met with no mishaps on their voyage, safely reached their destination, and were magnificently received by Louis XIV. Nor had any misfortune attended the first Siamese embassy to France, which left Siam in 1685, with M. de Chaumont, the head of Louis XIV's first embassy, which returned with the French envoys, MM. de Cebcret and de Loubere, in 1687.

The head of the first embassy to France is named by Tachard, Or Pavisu Ta. The name of the chief ambassador of the second, is not given. The Mandarin Occum Chamnan, who relates the story of the shipwreck, in Tachard, was attached both to the Portuguese and the second French embassy. The extract below is taken from the review of Sir John Bowring's book in the London *Examiner* of 14th March, 1857. The letter is, *verbatim et literatim*, His Siamese Majesty's own.

"His Excellency Sir John Bowring, Knighted Doctor of Laws, the Governor of Hong Kong, &c. &c. &c. &c.

"Respected Sir,—In regard to the particular narrative or ancient true occurrence of the present royal dynasty reigning upon Siam, I beg to say what I knew from statements of our parents and ancestors, and other tolerable and corresponding families whom I have been present of in considerable space of time, when they have been living or alive.

"The first family of our paternal ancestors, it is said, have been inhabitants of the city of Hanswatty (proper Sanskrit name), the capital of Pegu, written by Bishop Pallegoix in corrupted sound or pronouncing of Sankrit name 'Hongsawadi,' upon the time of reign the King of that city Pegu named Jumna ti cho by Peguen name, and 'Dusadi sawijay' by Sanskrit name (marked in book of the Bishop Pallegoix with figure 1). This family became officers of state.

* * * * * *

"After the time of the King Phra Naresr, marked 8, the particular narrative statement of this family is now disappeared to us until the time of reign of Phra Narayu, printed in book Phra Narai, marked 4, reigned at Ayudia and Lawoh about the Christian year 1656 to 1682. On the reign of this king, two brother, extraordinary persons, have been descendants of the said family; became most pleased to the king, who has appointed the older brother in place or office of the lord of the foreign affair, in name or title of 'Chau Phya Phra Khlang,' who has been at presence of the receipt of the French embassy visited Siam upon that time, and the younger brother of his Excellency Phya Phra Khlang, named Mr. Pal, was appointed head of Siamese embassy to France, of return of friendship with the French Government, and met with the being wrecked, lost of the ship at Cape of Good Hope, where he with his suit remained during considerable while, and afterward became to France, met with favourable treatment of the French Government upon that time, and returned to Siam, when his older brother was died. The King Phra Narayu has appointed him (Mr. Pal) the head of embassy in the office of his elder brother, the lord of foreign affair, 'Chau Phya Phra Khlang:' from this person extraordinary our ancestors were said to be descendants.

* * * * * *

"Our elder brother, the late king, succeeded our royal father; his coronation took place on August, 1824. His name was Param Dharwik rajahdhiraj (proper Sanskrit), and in Siamese name Phra Nangklau chau yu Acca. His reign continued 26 year; his demise took place on 2nd April, 1851; then my succession of him concluded, and I was crowned on May 15th of that year. My name in Siam is Phra Chomklau chau yu hua, and I bear the Sanskrit name as ever signed in my several letters—

"S. P. P. M. Mongkut,

"incontract that are

"Somdetch Phra Paramendr Maha Mongkut.

"Rex Siamensium."

[Sir John Bowring's work is in the Public Library. This letter will be found in Vol. 1, p. 63.—Eds.]

In a note to the article in this number, on the first voyages to the Cape, it was stated that Barrow gives in his work a copy of the proclamation issued by Captains Fitzherbert and Shillinge in 1620. It appears only in the first edition of his travels, and is omitted in the edition in the Public Library. It may, therefore, be interesting to our readers to have the document printed entire in this periodical. The following is the proclamation :—

"James, by the grace of God, King of Great Britain, France, and Ireland, Defender of the Faith, &c. : Know all men, by the present publication hereof, that according to our bounden duties to our Sovereign Lord the King, James, by the Grace of God, King of Great Britain, &c., and the State ;

"We, Andrew Shillinge and Humphrey Fitzherbert, chief commanders of the two fleets at present bound for Surat and Bantam, &c., upon a good consideration, and by a consultation holden on shore, the first of July, 1620, of both fleets, on the coast of Africa, in the bay of Saldania aforesaid, for and in the name of the said high and mighty Prince James, and for and in the name of the whole continent near adjoining, so far to be extended as that at present no Christian prince nor potentate have any fort or garrison for plantation within the limits aforesaid ; and our Sovereign Lord the King to be thereunto entitled Lord or Prince, or by any other name or title whatsoever that shall seem best unto his gracious wisdom.

"Dated, proclaimed, executed and subscribed in the Bay of Saldania, the third day of July, 1620.

"(Signed) Humphrey Fitzherbert.
Andrew Shillinge."

The particulars of this transaction are entered at full length on the records of the East India Company ; and the following is an extract of the letter on the subject, dispatched home to their masters by Captains Shillinge and Fitzherbert :—

"EXTRACT.

"Notwithstanding all which, may it please your worships to be certified, that we whose names are hereunto subscribed, tending his Majesty's supremacy and sovereignty more than our own safetys ; and falling into the consideration of the conveniency of this bay of Saldania, by us so called, situate and being in the latitude of 34° or thereabout south latitude, for the better prosecution of your trade to the East Indies, upon a full and general consultation holden on shore by both your fleets, now bound for Surat and Bantam, the first day of July, in the year of our Lord 1620, have fully agreed to take possession of the said bay of Saldania for and in the name of our Sovereign Lord the King, James, by the grace of God, &c., and for and in the name of the whole continent near adjoining, so far to be extended as that no Christian prince or potentate have at present any fort or garrison for plantation within the limits aforesaid, as by a deed published, executed, and subscribed in the said bay of Saldania, the third day of July, 1620, herewith sent your worships, more plainly may appear ; which deed was published with great solemnity before the English and the Dutch ; who seemed likewise much to approve the same. And in token of possession, taken as aforesaid, and for a memorial hereafter, we have placed a heap of stones on a hill lying west-south-west from the road in the said bay, and call it by the

name of King James his Mount. The main and principle reasons which induced us to do this without order were many. First, at our arrival in the bay we found nine great ships of the States ready to set sail for Bantam, who declared to us plainly that the States did mean to make a plantation here the next year, and that they had taken a view of the bay, and made a road already in the country some thirty or forty miles, &c., meaning, as we suppose, and it is not to be doubted, to make us hereafter pay for our water and anchorage, towards defraying their intended plantation. Likewise this great country, if it were well discovered, would be kept in subjection with a few men and little charge, considering how the inhabitants are but naked men and without a leader or policy. We also thought to entitle the King's Majesty thereto by this weak means than to let it fall for want of prevention, into the hands of the States, knowing very well that his Majesty is able to maintain his title by his word against the States, and by his power against any other prince or potentate whatsoever ; and better it is that the Dutch, or any other nation whatsoever should be his subjects in this place, than that his subjects should be subject to them or any other. To which may be added the practice of all men of all times and in all places in the like cause, entitling their sovereigns to be governors where no government is already instituted. Many more particulars might be alledged, as the certain refreshing of your fleets quickly acquired out of your own means by plantation, and to be hoped for from the blacks when there is a government established to keep them in awe. The whale fishery, besides, persuades us that it would be profitable to defray part of your charge. The fruitfulness of the soil. together with the temper of the air, assures us that the blacks, with the time, will come in, for their ease, and of necessity. Time will, no doubt, make them your servants, and by serving you they will become hereafter (we hope) the servants of God."

[The hill referred to in this passage as King James' Mount is the Lion's Rump of our time.—Eds.]

From the *Navorscher* (the "Notes and Queries" of Holland) for 1854, p. 262, and 1855, p. 91, I translate the following query and reply, which may be of interest to some readers :—

"*An African Doctor of Divinity in the Netherlands in the last century.*

"About fifty years ago, I saw on the table of a friend, long since deceased, and whose relatives I do not know, a theological dissertation, defended, if I remember rightly, at the University of Leyden. A vignette of the author was on the title page. I was told that the writer was a Hottentot by birth. I paid no attention then to the subject of the dissertation, nor to the author's name, but listened only to what was related of him by my friend. This was, that after having taken his degree the author returned to South Africa ; immediately rejoined the Hottentots, and entirely forsaking the civilized habits, and bidding farewell to the learning which he had acquired, lived among his own people as if he had never been in any other society.

"The communication of the date and subject of the dissertation, and of any particulars relating to the author, will be thankfully received by *Curiosus*."

The reply, correcting the error of *Curiosus* in stating that the person concerning whom he inquired had been a Hottentot, is curious, as exhibiting

a man, who had been a slave, writing a defence of slavery on religious grounds.

"*Curiosus* is somewhat mistaken in his statement. The following are the facts :—

"A Dutch ship-captain had bought a negro lad, eight years old, in Guinea, as a slave, and presented him to a merchant,—one of the directors of the Dutch East India Company. The merchant took the boy to the Hague, caused him to be instructed in Dutch and in drawing, and also in religious knowledge ; so that, after examination, he was baptized, and named 'Jacob Elisha Johannes Kapitein.' The religious knowledge thus acquired raised in him the desire of applying himself to divinity ; and, in the year 1742, he defended publicly, and with honour, at the University of Leyden, a Latin dissertation—*De servitute libertatæ Christianæ non contraria*—'On Slavery not at variance with Christian Liberty.' He did not, however, take the degree of Doctor of Divinity. Having been admitted to holy orders in the same year, he was appointed as minister to the congregation of St. George d'Elmina. But on his arrival at his destination, he soon sought his relatives ; apostatized from Christianity, and became a heathen."

It is right to add that another reply states that he went into the interior in search of his relatives ; and it is merely a rumour, based on slight foundation, that he wilfully forsook Christianity for the heathen superstitions of his forefathers. Z.

Since I forwarded you the letter, giving an account of a week's shooting in India, I have received the following communication, respecting the propensity of snakes to procure milk in other ways than by purchase, which I have received from a friend in the country. I need scarcely say I cannot credit the story ; nothing but ocular demonstration, or the clearest evidence, which I had the opportunity of cross-questioning, will ever induce me to believe it. It is too unnatural ! What would suggest to a reptile the idea of trying such a place for milk ? I can imagine a snake accidentally coming across a pan of milk, and finding it good taking his fill thereof ; but for one crawling in the jungle. and meeting with a sleeping woman or cow, to know where to look for a fluid *to which it was unaccustomed*, is giving more intelligence to a creature than I can allow.

I begin to suspect that we must look back to a very remote period for the origin of this superstition, even to the day when the Almighty put enmity between the seed of the woman and the serpent ; an enmity which is still plainly shown in the antipathy of the human to the reptile race.

E. L. Layard.

"My dear Mr. Layard,—With much pleasure we read your 'Fire and Smoke,' in the *Cape Monthly Magazine* for June ; and as you seem to wish for more information as to 'Popular Delusions,' I will try to detail a story for you, that was told me many years ago, by one of the coloured people, called 'Bastard Hottentots,' who, from having a mixture of European blood in them, are generally more intelligent than the unmixed breed. This story relates to the 'lacteal' propensities of the snake family, to which you allude. It has often puzzled *me*. I leave you to judge of it. The woman from whom I heard it was an intelligent person, wife to a soldier of the

C.M.R., who then washed for us. I perfectly recollect her emotion and change of countenance, whilst relating it. I found her generally truthful and honest; her narration was simply, though graphically, set forth.

"A family of coloured people, to whom the above woman belonged, was in the employ of a wine-farmer, somewhere in these western districts; the grapes were ripe, and these people were all set, with long whips, to scare away the birds, who, at such times, commit incredible depredations. At noon, even these little plunderers found the sun too hot to encounter, in the open vineyard, so retired to the shade. The farmer and Hottentots took advantage of this circumstance, and determined on a siesta; the former in doors, the latter under the shade of some large trees. A young woman, wife to my friend's brother, lay outside, with an infant on her arm; next to her was her husband; then his old father, some others of the family, and amongst them my informant. After a time, the nursing mother felt uneasy and *pained* in her sleep. She roused herself, and was horrified at beholding a large and venomous snake fastened on one of her breasts. The infant was sleeping with its mouth to the other, whilst the body of the snake was across the child. With extraordinary self-possession, she quietly awoke her husband with her foot, informed him something very fearful was occurring, but that he must move very gently, or great mischief would ensue; for *once* a husband was obedient, and he did rise gently to contemplate the sad scene before him. The others were awakened and a consultation held. The poor woman, herself, advised the creature being left quite alone, as when gorged, it would fall off. Whilst speaking, she had the relief of seeing it roll off the child, which was immediately drawn away uninjured. The people then went to call the farmer, who actually shed tears when he saw the poor patient victim in so fearful a position. He solemnly asked her what *she* wished done. She repeated her desire to try the effect of perfect stillness on her part, and that the snake should not be interfered with. The farmer said he felt as if the Almighty was directing her, and she must be obeyed. After a considerable time, long indeed to her, the satiated reptile fell off, helpless, from repletion. In a moment, the husband made good use of a hatchet, with which he had provided himself; the glutton was hewed in pieces, and the poor woman sprang to her feet, truly thankful for her escape. The ground where the remains of the snake lay, appeared as if a basin of milk had been poured on it.

"What you remark as to the mouth of the snake not being formed for suction bears strongly against my story; but you will perceive, the woman was awoke by a *painful* sensation. As the fangs are in the sides of the jaws, there would be quite room enough for even a middle-sized snake, especially the broad flat-headed kind, to lay hold of what would procure it the milk, more particularly with a woman, though a *cow* might puzzle them. The woman, it was stated to me, felt a good deal of pain all the time the reptile was sucking, but the skin was not broken."

REPLIES.

I SEND you the following, in reply to your querist "H," who has asked for reminiscences of the old Duke of Wellington, during his stay at the Cape, in 1796. I much fear the time has gone by for arriving at details of his

visit : most of his contemporaries have either gone beyond the bourne, or are now in the "sere and yellow leaf." Forty years ago, Lieutenant-Colonel Wellesley's name was fresh in the memories of many respectable parties, whom I have often heard discussing the qualities which then shadowed forth the subsequent renown of the hero. His carriage and bearing distinguished the Lieutenant-Colonel as one born to take a prominent part in the affairs of the world. Had his contemporaries in his visit survived, viz., Messrs. Robinson, Walker, Wm. Robertson, Alexander McDonald, Hamilton Ross, Rankin, and Scott, much of interest, I am persuaded, might have been elicited from their intercourse with the Lieutenant-Colonel. At the period of his sojourn, the customary Bacchanalian scenes had reached the climax of debauch. The very invitation to the "mess" was generally tantamount to a certainty of a subsequent snooze under the table. Many yet living may recollect the eccentric Hendrick Hegers, *alias* Cheap John, once a slave, and butler to Messrs. Robinson and Walker, then wealthy merchants,—both, I believe, allied to the peerage of Scotland,—and with whom Lieut.-Colonel Wellesley frequently dined. The company were waited upon by Hendrick Hegers, who has often described to me the manly character of the Duke, and the unaccountable prudence of the guest, who unscathed, when all his companions were *hors de combat*, would walk to his private lodgings without the slightest indication of excess. He never slept in the garrison during his stay, but occupied a room at the house of the late Mrs. Berg,—now Mr. Solomon's steam printing office. It is only a few years ago that the iron camp bedstead used by the Lieutenant-Colonel was disposed of.

Mr. Ross has often told me of his determined force of purpose. "If the Lieutenant-Colonel said 'I will go to that blockhouse,' pointing to the one elevated on the Devil's Hill,—meaning any difficult deed,—he would do it without fail." Whenever he entered upon an argument, so well had he made his calculation beforehand, he was sure to be successful. The ladies of the day had a keener perception of his character than their would-be lords (as is generally the case) ; and they seemed to augur the greatness of the future career of our hero. They were far from indifferent to his merits. I have mentioned the once princely house of Robinson and Walker, and may, by way of digression, make a further allusion to the firm, and leave some record to posterity of the well-known Cheap John. The firm unfortunately embarked in a speculation to the Rio de la Plata, on the fall of Buenos Ayres, but which was most untowardly upset, bringing ruin on the house. Mr. Robinson soon after died, and Walker was reduced to penury. It was then the kind-hearted Hegers—who had been emancipated during the lifetime of his old masters—took Mr. Walker into his house, and provided for him for upwards of thirty years ; showing him the same respect and attention as if Mr. Walker had still been his master. Hegers, during the chief portion of the period from successful business, was well enabled to render him every comfort ; and not the strongest solicitations from his relatives in Scotland would induce Mr. Walker to separate from the man that had once been his Onesimus. But with the death of Cheap John, and the unaccountable reverse of his estate, which at one time was estimated at £40,000 sterling, Walker, still adverse to return to his friends, at his great age, was admitted into the Somerset Hospital, where, not many years afterwards, he ended his days.

Thus far, having given some brief hints concerning the residence of the great man at the Cape, I hope the subject may attract some older members of our community, contemporary with the Duke's visit, to furnish you with more detailed particulars.

If not trespassing too much, may I be permitted to notice a circumstance connected with Sir Arthur Wellesley, though the affair was not a colonial one ? I believe it has never appeared in print. It was related to me by a visitor, my friend General H———, who was an eye-witness to the fact. It was an incident on which, probably, the career of the noble Duke materially hinged. Prior to the fall of Seringapatam and the downfall of Tippoo Saib, Colonel W. (his brother being then Governor-General of India) was selected

by General Harris to make a night attack upon a fort, called the "Sultann Fettah Tope,"—much in the way of the besiegers of the capital,—with some hundred men. The night of attack was dark; an unknown fosse intersected the move, and in a few minutes, the entire party fell into confusion; several were drowned; others clung to a small island till dawn of day, when the stragglers, including Col. W., dropped into the camp, deeply mortified. Col. W., as my friend, who was present, stated, threw himself upon the mess table at full length, in apparent agony, at which moment a message arrived from General Harris, commanding the presence of Col. Wellesley. Faithful to the order, he promptly attended the tent of the commander-in-chief, expecting nothing less than his displeasure or a reprimand; but to his astonishment, he received neither the one nor the other. General Harris said, "Col. W. is it possible to take the fort in question?" The features of the future Duke beamed with daring chivalry, and he promptly replied in the affirmative. "Then," said the General, "this day take as many men as you deem fit for the object." Col. W. replied, "Not one more than I had last night—not an additional man, except to replace those lost." The hero had discovered a weak point. The attack took place, and was crowned with success.

The Governor-General's connexion with the Colonel may have had some weight in the charitable conduct of the commander-in-chief. At any rate, the hero's career, "taken at the flood," led to a series of unparallelled victories. G. T.

Dik-a-ton (*Cape Monthly Magazine*, vol. 2, p. 58).—This word is a corruption of "ducaton," a form of "ducat:" *lit.* a coin struck by a duke, or rather by an independent leader,—"dux."—the first ducats being said to have been coined, in the sixth century, by Longinus, exarch of Italy and "dux," after he had declared his independence of Justin the younger. The modern ducat seems to date from the thirteenth century, having been struck first in Sicily, and then by the Venetian Doge, "blind old Dandolo." It soon became also a favourite denomination of coin throughout Germany, in Hungary, Sweden, the Netherlands, and, more lately, Russia.

Then ducats were usually of gold, and in value about nine shillings; though there were silver ducats, in some parts of Italy, of rather less than three shillings in value.

The "ducaton" (*Anglicé*, ducatoon) was a silver coin, principally in use in the Netherlands, somewhat larger than a crown piece, and equal to about five shillings and sixpence. The term "ducaton" was, however, applied to some gold pieces also,—viz., the "goude ducaton" or "souverain" of Brabant,—which was valued at fourteen florins, or about a guinea.

The ducaton at the Cape was merely "money of account," equal to six and a half rixdollars, or four and a half guilders. When the guilder (of eighteen stivers currency, and hence, nominally equal to one shilling and sixpence, but in Exchange not worth more than thirty-three per cent. of its nominal value) was fixed at sixpence sterling, the rixdollar became one and sixpence: and the "ducaton," being a rixdollar and a half, became two shillings and threepence.

Ducats still exist in some parts of Europe: but neither "ducats" nor "ducatons" are now coined in the Netherlands. Z.

Answer to "A. J. C's" Query.—*Marine Shells on the top of Table Mountain!* Why has not "A. J. C." brought a specimen down for identification? and is "A. J. C." sure they are marine shells? Does he know a sea-shell from a land-shell? We will take it for granted he does, and that they *are* marine shells. Now, where did he find them? Are they imbedded or lying on the surface? Are they fossil, sub-fossil, or recent? Are they of many species, or of but one? and what species is it? and in what quantity? Were they broken or perfect?

"A. J. C." had better *learn how to look at things*, strange as the advice may seem, yet how few know how to use their eyes properly. For by the above questions, he will see how much has to be considered before his query can be satisfactorily answered.

A stranger, now at the Cape, lately adopted a very sensible plan, which "A. J. C." is advised to follow. He, too, found some shelly substances on a height, and quietly pocketing his unknown prize left it, with his card, at the Museum, with the request that he might be informed as to their nature. They turned out to be the opercula of two species of *Turbo*, much eaten by the lower orders here ; and which I doubt not were carried up, by way of refreshment, by some boy or Malay man. Birds also may have conveyed them there with the rest of the shell Many hawks and crows feed on shellfish, with which they soar to a great height in the air and let fall on rocks, so as to break them E. L Layard.

P. S.—A friend has just suggested that the large quantity of acephalous shelled mollusks (*Lamellibranchiata* of De Blainville), vulgarly called "oysters," found in the alleys in London, are no proof of that city having once been submerged beneath the ocean. I think I agree with him.

E. L. L

QUERIES.

"Odium Theologicum" at the Cape.—The following piece of absurdity, from the London "Notes and Queries," gives the worthy boers of this colony credit for more knowledge of the religious disputes which raged between their forefathers, than one in five hundred will be found to possess. Though they are very good Calvinists, the differences between Arminius and Gomar have scarcely come to the ears of most of them :—

"I am told that the Dutch boer at the Cape, after loading his beast with all sorts of epithets and terms of reproach, usually finishes off by calling him an Arminian! A curious instance of the extent to which the *odium theologicum* may be allowed to proceed.—E. H. A." *Notes and Queries*, Oct. 25, 1856, new series, vol. 2, p. 337.

What can be the origin of this precious nonsense ? Z.

[It is a common practice for boers and wagon-drivers in the country districts to shout to their bullocks vociferously enough, indeed, though not generally "reproachfully." The animals are on such occasions always addressed severally by name, and *Hermann* is one of the names commonly in use. It is probable that some Englishman, not profoundly versed in the onomatology of the Cape, hearing this name *Hermann* applied to the oxen, has confounded it with the term *Arminian*, and in the spirit of a zealous member of the Pickwickian Club, communicated his discovery to "E. H. A," the correspondent of *Notes and Queries*.—Eds.]

Why are the Irish often said to be of pure Milesian blood ? Surely, they don't pretend to be descended from the ancient Ionians ? Y.

ASTRONOMICAL PHENOMENA FOR AUGUST, 1857.

August 12, 1h. 30m. p.m., Jupiter in conjunction with the moon, Jup. S 5° 23′
„ 16, 6h. 21m. a.m., Venus „ „ „ Ven. S 7 9
„ 17, 4h. 14m. a.m., Saturn „ „ „ Sat. S 4 55
„ 17, 11h. 58m. p.m., Mars „ „ „ Mars S 3 17
„ 21, 3h. 18m. p.m., Mercury „ „ „ Mer. S 0 53

Aug. 28.—The star "Antares" (first magnitude) will be occulted by the moon. Disappearance at 0h. 35m. a.m. The reappearance will not be visible. Moon below the horizon.

„ 29, 9h. 30m. a.m., Venus in conjunction with Saturn. Venus S 1° 6′. The star BAC, No. 6127 (fifth magnitude) will be occulted by the moon. Disappearance at 6h. 19m. p.m. Reappearance at 7h. 37m.

„ 30.—The star T Sagittarii (eleventh magnitude) occulted by the moon. Disappearance at 7h. 39m. p.m. Reappearance at 9h. 4m.

Morning Stars for the month—Venus, Jupiter, and Sirius.

Evening Star—Arcturus.

Meteorological Register for June, 1857.

Deduced from five Observations daily, Sundays excepted.

Hours of observation, 1h. 34m., 5h. 34m., 9h. 34m., 17h. 34m., 21h. 34m., Cape mean time.—Height above the sea level, 37 feet.

Day	Barometer corrected at 32° Fahrt.	Thermometer		Humidity of Air. Saturation = 100	Self-registering Thermom		WIND.		Rain.	Cloudy sky in tenths.
		Dry.	Wet		Max.	Min.	Force.	Direction.		
	Inch.	°	°		°	°			Inch.	
1	30·158	52·64	50·28	85·6	59 0	43·4	0·3	WbS		5·1
2	30·169	52 48	50·14	85·2	59·4	42·2	0·3	WbN		0 8
3	29·965	54·88	51·54	80 4	61·0	47·2	1·8	NNW		8·4
4	29·880	57·50	56·54	94·2	53·2	50·8	3·6	NbW	0 565	8·3
5	29·783	57·82	56·22	90 8	62·0	52·5	2·1	NW½N	0.461	9·8
6	29 926	56·46	53·24	81·6	61·3	51·0	2·4	NW½N	0·100	6·4
7					58·8	49·1			0·478	
8	30·044	54·42	52·16	86·0	59·5	44·0	0·1	NW	0·011	3·6
9	29·677	58·62	53·78	73·8	67·5	52·4	3·7	NW	0·131	9·1
10	29·774	55·90	53·04	82·8	60·4	50 9	5·1	NW¼W	0·100	8·3
11	30 041	55·68	53·14	84·8	58·5	50·8	3·1	NbW	0·166	8·3
12	30 024	57·86	54·82	82·6	61·3	52 3	4 0	NbW		9·1
13	29·901	57·14	52·90	75·4	61·5	52·1	4 7	NWbW	0·043	7·8
14					57·7	50·1			1·379	
15	30 245	50·50	47·32	80·2	56·3	40 0	0·0	WSW	0·088	1.8
16	30·230	48·94	45·92	80·6	55·0	36·5	0·3	SW	0 026	1·0
17	30·069	53·04	49·28	77 6	61·0	44·0	0·4	WN W¼N		4·9
18	30 000	55·28	53·34	88·2	58·5	50·3	1·1	WSW	0·036	10 0
19	29·829	56·60	54·24	86 2	60·6	51·5	3·9	NWbN	0·290	10·0
20	29·941	55·46	53·02	85·6	57·5	49·4	4·3	NWbW	0·326	6·6
21					61·0	50·4			0·063	
22	30·208	55·00	51·98	82·2	59·0	48·2	0·5	W		8 6
23	30·196	53·58	50·30	80·4	54·5	46 2	0.9	NW		3·1
24	30·275	55·60	53·40	86·8	58·2	49·0	0·5	NWbN	0·014	4·3
25	30·216	53·86	51·34	85·0	61·7	40·7	1·7	SW½S	0·015	0·3
26	30 077	54·86	51·48	80·6	63·7	44·0	1 0	WNW	0 007	0 9
27	30·200	53·86	51·06	82·8	59·0	47·7	0·4	WNW	0·030	7 0
28					59·8	42·8				
29	30·246	54·50	52·68	89·4	59·0	45·8	0·3	NNW½N	0·235	6·0
30	30·010	53·82	51·32	84·8	59·0	44·5	0·8	WSW		2 4
Mean	30 042	54·86	52·10	83·58	59·66	47·33	1·82	WNW½N	4·564	5·84

MEAN RESULTS FOR THE SEVERAL HOURS OF OBSERVATION.

	A. M. h. m. 5·34	A. M. h. m. 9·34	P. M. h. m. 1·34	P. M. h. m. 5·34	P. M. h. m. 9·34	highest	lowest
Barometer, cor. to 32°, inches	30·035	30·064	30·021	30·036	30·053	30·391	29·520
Thermometer, dry bulb, deg.	50.70	55·34	59·48	55·91	52 86	65·8	43·6
„ wet bulb, deg.	49·03	52·68	54·65	53·09	51·03	58·2	38·4
Humidity of the air, per cent.	89 00	83·92	73·42	83·35	88·31	96·	47·

ext
ht

PLAN,

SHEWING THE RELATIVE EXTENT OF

ARABLE LAND

Under the present system of Irrigation, and the relative extent which could be irrigated if "Right of Passage" was allowed.

The patches in *green,* shews the present Arable Land,
And that coloured *red,* shews what could be irrigated.
The *dotted lines,* shew the proposed new Aqueducts.
The word "*dam*" denotes, where such works would be necessary.

CAPE MONTHLY MAGAZINE.

IRRIGATION—WHAT HINDERS IT?

BY WILLIAM ATMORE, ESQ., C.E.

It is with pleasure I observe such men as the Hon. F. W. Reitz endeavouring to draw public attention to the subject of irrigation. As Mr. Reitz has appealed to professional men, "to say whether there are not vast tracts in South Africa where, in the rainy season, the superabundant waters could be led out," I beg to offer my mite of information upon the subject; and to state my opinion that in South Africa large tracts of the richest soil in the world can be irrigated; that there is water sufficient to do it with; and, what is of equal importance, that the expense would be moderate.

It is hardly fair to say that irrigation has been neglected in this colony, for all the lands have been granted wholesale for pastoral purposes. In consequence of this it is, that up to the present time only very small patches have been cultivated by means of irrigation, conducted on the most primitive principles. I look upon irrigation as just beginning to be forced upon the colony, by the present high prices and increase of population; and I agree with Mr. Reitz that the subject demands the consideration of Government, but dissent from him entirely as to his proposed method of sending colonial youth to Italy, to be educated at the state's charge for the purpose. I believe I shall be able to show that the obstacles to improvement will not be found in the paucity of men competent to the task, but in the present state of the law upon the subject.

To make the subject as clear as possible to those who feel interested in the matter, I have prepared a diagram of a tributary of the Olifant's River,* showing the relative quantity of land at present under irrigation, and the relative quantity which could be irrigated if the law allowed "right of passage." This is of course a mere fancy sketch, but still a fair representation of the Olifant's River country in general, and sufficient to enable the reader to understand the subject.

* See accompanying lithograph.

Referring to the sketch, the patches in green represent the relative amount of land under irrigation, as compared with the extent of the various farms, which are watered each by its own water-sluit. These sluits have no dam-head or weir to hold a supply. The stream is merely guided into them, at any convenient place, by a few stones, sticks, and sods, which the first flood carries away, and which are not replaced till the water is again required for irrigation. After the proprietor of the farm marked A has finished his irrigation, it would naturally be supposed that he would allow the water to flow through the remainder of his farm for the benefit of the proprietor of E, but such is not the case. It is invariably turned into the river again as shown at *a*; and unless the proprietors of E and F have a prescriptive right to take water from A, they must take it from the river within their own limits; and so on through all the farms shown on the sketch, and throughout the colony as far as I am acquainted.

The consequence of this illiberality (at present allowed by law) is the limited extent of land at present under cultivation. If it is considered that the fall gradually gets less as we approach Olifant's River, and the soil deeper, the tributary will also have a deeper bed; consequently, the proprietors of the farms F G H have greater difficulty in leading water from the tributary, and because the fall gradually gets less, each farm in succession has less land which can be irrigated, and that little at its lowest point. Hence, under the present system, and with the present law, the farms nearest Olifant's River, which contain the most and the best arable land, have the least water and the least land under cultivation. The same reasoning applies to every river I have seen in South Africa; and here I beg to bring a well known spot to the notice of the Hon. Mr. Reitz, viz., the Buffelsjagt Valley, which is suffering from want of water, in consequence of "right of passage" not being the law of the land, although there is more than enough water for the purpose constantly running in the river.

All the foregoing evils could easily be remedied by making "right of passage" the law of the colony. By this right of passage, I mean to give every proprietor on every stream equal rights of water, and also to allow a free passage for water through the land of one proprietor to that of another. Referring again to the sketch, the dotted lines represent the right of passage water-sluits, which, as shown, must originate at higher levels, and free passage be allowed by the proprietor of A to the proprietor of B, and from B to C, &c., by which means the additional quantity of land, coloured red on the

plan, could be brought under cultivation, the advantages of which to the parties concerned, and the public at large, I need not here enlarge upon, further than to say that many large tracts—as B and C—now used as mere cattle pasture, will have considerable extents of land under irrigation, and thus become as valuable as those which have at present the right of water.

But as objections may be raised against right of passage by some individuals, from the same motives which now induce them to turn the waste water into the river rather than allow it to flow for their neighbour's benefit, I will endeavour to prove that no injury can, in any case, be done to any estate or individual by granting this right now recommended,

A reference to the plan will show that by placing a proper weir at the spot marked "dam," to the left of the farm A, and by preserving the levels, as shown by the dotted line marked "right of passage," that a considerable portion of the places B and C can be irrigated, as well as a much larger extent of A. Probably one hundred times more land could be irrigated by the "right of passage" sluit, than can be done by A by the sluit with which he irrigates his green patch, when he has water sufficient. But, says A, if you put such a weir at the place proposed, I shall have no water to lead from my dam, and my green patch cannot be cultivated in consequence; and if you stop all the water in your dam my neighbours will suffer more than myself.

Let us see what these objections are worth. In the first place, A will have a great deal more land which can be cultivated under the right of passage sluit than under his old one, and is benefitted exactly in the proportion which the extent of land under the new "sluit" bears to that under the old. Next, it is not the fact that placing the new weir in the river will take all the water out of it. Indeed such a notion would appear to infer that placing the new weir in the river *would stop the river from flowing for ever afterwards.* But A need not be alarmed,—the river will continue to flow, even after the weir is put in it; and after the reservoir above the weir is full, there will be more water in the old dam of A than ever was before, the natural flow being increased by leakage from the large body of water in the reservoir. Therefore, A is benefitted always by right of passage, instead of being injured. But now friend A, when right of passage becomes the law of the land, you are no longer allowed to turn the water from your old sluit into the river at *a*, that must be allowed to flow for the benefit of E, F, G, and so on to Z, if necessary; and to insure greater efficiency, your

neighbours will take the liberty of removing your primitive piece of engineering, and putting a substantial weir in its place, by which you will be further benefitted by having constant water in your old sluit, instead of having it only occasionally, and by having the water delivered at a higher level.

In the same way weirs must be placed wherever necessary, and it appears that all parties would be benefitted and none injured. In support of my theory that weirs in the river increase the quantity of water lower down, I could quote several instances which have occurred in the course of my practice in this colony, but prefer allowing those interested in the subject to judge for themselves. We may, therefore, first consider the river in its natural state, sometimes brimfull and sometimes not more than six inches of water in it; the latter being the most prevalent. When in that state, there is a perfect scramble amongst the proprietors to share the little there is; and there being no weirs to hold a supply, the night's water runs past and is lost forever. Now let us consider the same river with weirs in it. As before stated, the nearer we approach Olifant's River, the flatter the land becomes, the soil is deeper, and the beds of the rivers also; hence the reservoirs will increase in magnitude as we descend the tributaries; which is a most advantageous circumstance for the large flats on the banks of the Olifant's, because the weirs must be made higher as the bed of the river deepens. Let us now suppose ten weirs in the river on the sketch,—the height of the first weir six feet, the second seven feet, &c., which gives the height of the tenth fifteen feet, and is about the kind of thing required here; let the fall of the bed of the river be one in twenty at weir number one,—and for simplicity of argument we will keep them all at that inclination,—and let the width of the river be forty feet: hence, in the first reservoir, we shall have six feet deep, one hundred and twenty feet long, and forty wide, the water being in the shape of a wedge. These quantities multiplied into each other and divided by two gives fourteen thousand four hundred cubic feet of water retained by weir number one, instead of being allowed to run to waste. Number two will be $\frac{7 \times 140 \times 40}{2} = 19{,}600$ cubic feet, and number ten will contain 60,000 cubic feet,—making a total of 400,000 cubic feet of water retained for use in these reservoirs, and the same amount of running water in the river as obtained before the weirs were placed in it. Thus we have a supply to meet a drought; and by closing the sluices at night, the reservoirs

would all be full in the morning; but, under the present system, the night's water passes by altogether and can never be replaced.

The same reasoning applies to Olifant's River itself, but of course the works would require to be on a larger scale, and would be attended by larger benefits. Indeed the greater part of the valuable land in this part of the colony might, by granting right of passage, be brought under cultivation instead of remaining in its present state, the waste pasturage of the colony; and, in many instances, the weirs could be so constructed as to serve for fords in time of flood.

Possibly, some individuals may think the cost of these works would be too great for this plan to be of any practical utility. I will therefore devote a small space to the consideration of probable cost. Weir number one will be of the following dimensions:—

Forty feet long, six feet high, six feet wide at the crown: inclination inside two to one, ditto outside three to one: which gives a solidity of 7040 cubic feet, including the necessary revetments to the banks, and provision for escape of surplus water in time of floods, then

7040 cubic ft. quarrying, at 1s. 6d. per cub. yard,	£18	10	0
7040 do. rough masonry, at 2s. 6d. do.	32	10	0
Sluice and fixing.....	5	0	0
Carriage, incidental expenses, &c	20	0	0
Total,	£76	0	0

For which the proprietor would have a reservoir, secure from accidents by floods, containing 14,000 cubic feet of water in addition to the present daily supply. The solidity of the remaining weirs and their probable cost will bear the same ratio to number one as the volumes of water contained by each respectively; therefore it can be easily inferred that the expense in no case will be very heavy.

The next question which suggests itself is, what additional amount of land would this weir enable the proprietor to cultivate? An answer to this can only be given generally, as it depends upon a variety of circumstances. In England, a foot of sectional area will drain 1000 acres. I think, therefore, it will be a fair inference that in this country it will irrigate as much; and taking into consideration that the same ground does not require irrigating oftener than once a week, it may possibly irrigate more. Again, the amount of water delivered depends entirely upon the inclination of the aqueduct. It will, therefore, be for the engineer to adjust the inclination of the aqueduct so as not to exhaust the

reservoir, and varying the inclination according to circumstances; as water may be made to flow with any velocity from 0 to 16½ per second, increasing as the square of the time, it is clear that velocity will vary as the sine of the angle of inclination between these extremes, deducting the effects of friction. To ascertain approximatively the delivery of water, let us consider the main aqueduct from weir number one as having a fall of four feet in a mile. From the foregoing, the velocity would be ten inches per second. But for simplicity's sake we will take it at a foot per second, which at a foot of sectional area is one cubic foot per second, consequently, it would require 14,400 seconds, or four hours, to empty the reservoir (provided all supply for the time is stopped), but which is not the case. At the velocity assumed, it requires one hour twenty-eight minutes to travel a mile,—say one and a half hour,—hence in four hours it will travel two and two-third miles. Now a square mile contains six hundred and forty acres, and if the land belonging to number one be limited to a mile in length, we have one and one-sixth hour to spare, which can be employed at convenience on the square mile; and supposing the square mile properly laid out for irrigation, the water could be let flow into all the sluits at once, and the irrigation accomplished in the four hours; and as the ordinary run of the water is not interrupted, it is clear that at least six hundred and forty more acres of land can be irrigated by weir number one than can be done without it; and this extra extent of land, which can be irrigated by this plan, increases in direct proportion to the volume of water retained by each successive weir, the expense being also proportionate.

But this is not all the benefit available to the proprietor of weir number one. It will also enable him to form other reservoirs on his property, which can be filled in time of flood. I have previously taken the inclination or fall of the land as one in twenty: now the weirs can be made higher by taking the precaution of revetting the sides of the river—say, for instance, three feet higher, viz., make weir number one nine feet high instead of six, and revet the sides of the river till they meet the fall of the land. By this means, weir number one would contain 33,400 cubic feet of water instead of 14,400 at an additional expense of about £40.

To carry out this subject in all its details would far exceed the limits of this paper; but I trust I have said enough to show the facility of bringing the views of the Hon. Mr. Reitz into practice. The first thing I consider essential is right of passage; after which, such legislation on

the subject can be effected as circumstances may require. There is nothing which can develope the resources of the country to an equal extent, nor any subject more worthy the attention of the Legislature. I am aware this paper is not written with the care the subject demands, but I have been guided in my statements by actual experience, and a thorough knowledge of the extensive country I have mentioned. My acquaintance with a large portion of the colony is not slight, and I flatter myself I know its inhabitants well, and am certain I am correct in stating, they would generally hail "right of passage" as a boon, and avail themselves of it.

To right of passage ought to be added the right of any proprietor to place a weir in any stream from which he can bring water to his farm without injuring his neighbour. The word injury ought to be strictly defined, and limited to existing weirs, houses and vineyards. My estimate for these works may appear to some individuals too high, and to others too low, and will be so, according to the nature of the material used, and the facility of obtaining it. In some cases in Olifant's River it will vary one hundred per cent. from these causes, viz.: a weir of the dimensions given may cost twice the sum stated, and it may cost only half, according to the nature of the material and the distance it has to be brought; but, generally, the material is at hand, and the estimate will be found to apply in most cases. The item of carriage, varying according to distance, will be the only one subject to variation.

The Hon. Mr. Reitz appears to think that no individual is competent to construct these, or other engineering work, without first acquiring "local experience" by long residence on the spot, and has quoted instances which do not at all bear upon the question. If any work of the kind is required, the drift left by the highest flood is as visible to the passer by as to the resident of twenty years, and high water mark on the beach is as visible to the visitor as to him who has lived there all his life. Therefore, the engineer can ascertain, in a very short time, the extent of the highest previous flood, from the traces left by it on the ground; and a section of levels gives him the fall, velocity, and force of the element he has to contend with, and he constructs his work accordingly. That these local evidences have been greatly neglected in this country, I fully admit; but that it is necessary for an engineer to neglect them is by no means a consequence. At Breede River, for instance, the drift is a considerable height above the top of the railing of the bridge intended to have

been placed there in 1844; and at present in Meiring's Poort the road is being constructed under the drift of previous floods. What the consequences will be the next flood may probably show.

Doubtless, many will be surprised that so much can be done, as I have endeavoured to show, by granting "right of passage;" but although the benefits which would arise from that are very extensive, much more could be effected by works on a larger and more comprehensive scale. I do not mean anything like what an intimate friend of mine proposed for re-converting the Karroo into an inland lake; nor am I ambitious of being the first skipper to navigate a vessel on it; if that gigantic scheme should ever be carried out, that honour should certainly be reserved for the proposer of the scheme. But to return to the subject. There are many places amongst our mountain glens where an outlay of £1000 or £1500 would make a reservoir of cubic miles of water, under which manufactures might be established, and the water be made available for irrigating much higher levels than could be done by the right of passage aqueducts.

Olifant's River itself is too large, viz., too wide and deep, and the expense of works too heavy for private enterprise; but a company, or the Government, might effect a great deal with Olifant's River. Suppose it taken out at the highest levels, and reservoirs made in all the available kloofs which empty themselves into it, the upper aqueduct might be made available for transport of produce and goods, both ways, to some point nearest Montagu Pass, from whence the land carriage would be only ten hours to Mossel Bay; and if we consider that the greater part of the produce from this district goes to Algoa Bay, Graham's Town, &c., all the labour of man and beast, at present employed on these long journeys, could be more profitably employed in agriculture.

I will now, in conclusion, take a view of the probable quantity and value of the land which could thus be brought under cultivation. Of course this can only be arrived at correctly by actual survey and levelling. We must, therefore, depend upon estimate, and I will take, in my opinion, the lowest. I believe there is at least 200,000 morgen of such land in the valleys of the Olifant's and its great tributary, the Kamnasie which may be divided into three qualities,—say 80,000 of the best quality, 80,000 of the second, and 40,000 of the third; for the value of which, we must refer to present prices.

Within the last three months, I have known seventy-five morgen of land, at Wynand's River, sold for £1,500, of

which quantity not more than twenty morgen can be irrigated; the remaining fifty-five morgen is dry karroo pasturage, worth about 2s. per morgen, and the house and buildings are worth £450 at a fair valuation. This gives

Buildings.....	£450	0	0
Fifty-five morgen pasturage, at 2s.	5	10	0
Twenty do. arable.....	1044	10	0

From which if we deduct the value of the vineyard of 15,000 vines, at 1s. each, £750; leaves £294 10s. or £14 4s. 6d. as the present value per morgen of such land in this district. From this we have

Eighty thousand morgen at say £14,	£1,120,000
Do. do. do. 10,	800,000
Forty thousand do. do. 7,	280,000
Which gives a total of	£2,200,000

as the value of arable land in this district not at present under irrigation, one half of which could probably be irrigated by granting "right of passage."

I consider one hundred morgen of such land as much as one man or family could manage; and if the value of building, vineyards, &c., is considered, some idea may be formed of the real value of this splendid valley, which for want of right of passage is little better than a dreary wilderness.

THE PHILOSOPHY OF LATE RISING.

A VINDICATION.

Amongst the products of ingenuity, which were displayed at the great London Exhibition was a curious contrivance, termed an "Early Rising Machine." To a sort of camp-bed a somewhat simple apparatus of clockwork and springs was attached, and to the whole were superadded a dial-plate and hands. When retiring to sleep, we set it to the hour at which we wish to rise—give the pendulum a swing, and turn in. A gentle, half-musical ticking soon consigns us to dreamland, and continues till the rousing hour, when a sudden and violent alarum breaks the spell of Morpheus; and, after the lapse of a minute,—should we still have neglected the timely warning,—we find ourselves, by a terrible lurch, deposited upon the floor.

As I am one of those beings with whom late rising has become a sort of chronic disease, as some of my friends term

it, it occurred to me, on hearing of the invention, that such a machine would just be the thing for me. Happening to mention to a friend my intention of ordering one, what, reader, do you think I received for answer?

"My good fellow, keep your money, and spare the bruising of your bones. I know too well that you are incurable. Even such a machine will do you no good. You will, no doubt, lie down upon it with the best intentions—hear the alarum—turn round to sleep out, at all events, your *minute* of respite, when, before, as *you* conceive, half the time has elapsed, you will find yourself sprawling upon the floor; and then—"

"Well, and what then?" said I, half testily.

"Why, and then you will quietly turn in again, wishing the machine at Jericho."

My friend, of course, meant this as a joke:

> I knew 'twas mere good humour gave it birth,
> The harmless play of pleasantry and mirth.

Still, his language revealed that he knew me thoroughly, and I must confess that the idea of ordering the "Early Rising Machine" has never again entered into my head.

My abandonment of all hope of effecting a change in myself nerved me, however, in another direction. I had long before seriously doubted whether my habit was really a bad one. I now resolved to analyze my doubts. Drawing on my experience, and ruminating in bed of a morning (I need not say that I did not rise earlier in consequence), I soon had the satisfaction of discovering that I was actually more sinned against than sinning. The force of my convictions induced me to commit them to paper; and in transcribing them here, I shall merely remark that I have penned them with the more confidence, possessing, as I do, what must be admitted to be the rare advantage of practising what I preach.

Beau Brummel, on being asked if he was fond of vegetables, replied that he "once ate a pea:" no doubt by way of experiment. With the same laudable spirit, I also rose early one morning. I had heard a great deal and read much, in exquisite prose and verse, about the fresh, invigorating air at sunrise—the delightful twittering of the birds in the fields—the supreme loveliness of nature, when

> "——The morn, in russet mantle clad,
> Walks o'er the dew of yon high eastern hill."

The old cheering doggrels, "Early to bed and early to rise," "De morgenstond heeft goud in den mond," and that fine little nursery rhyme, with its strain of self-complacent

pity: "'Tis the voice of the sluggard, I hear him complain." All these, and a great many more, had now and then occurred to me. I never, indeed, had much faith in them. The noted early risers of my acquaintance I had always found much upon a par, physically and mentally, with those who, I knew, were wont to sleep "a hole in the day," as the Dutch say. And as to the poetical part of the matter, I knew that poets are proverbially late sleepers, thus gainsaying their own rhapsodies. Besides, they indulge largely in clap-trap:—

> "If thou wouldst view fair Melrose aright,
> Go visit it by the pale moonlight,"

drew a great many moonlight visitors to the Abbey; and some even went there when there was no moon, with torches, on long sticks, as a substitute;—the fact being, as Sir Walter Scott has admitted, that he had never seen the Abbey by moonlight himself.

In spite, however, of my scepticism, I was determined to make the experiment, and beheld myself, strange to relate, shaved and dressed just when—

> "The morning opes her golden gates,
> And takes her farewell of the glorious sun."

My first idea was coffee, which I was always accustomed to have in bed. So making straight for the breakfast room, I found—what?—Cimmerian darkness, and instead of the delightful aroma of Mocha, which was wont too greet my wakening sense of smell of a morning, I was regaled by a villainous compound of all the odours bred from the remains of the overnight supper. I now wended my way to the kitchen. Not a spark of fire on the hearth; and I was just leaving it for the servant's room, when I met my cook who asked me, in consternation, whether anything particular had happened. I saw that my uncommonly early appearance had startled the fellow. So, quietly leaving him, I put on my hat and went outside. The sun's disk was just above the horizon. A cold breeze was springing up, which made me regret that I had not put on my great coat. Buttoning up my thin jacket, I walked briskly up and down before the door. Oh, what a change from the life and animation which I was wont to behold outside at my usual hour of rising! Everything now seemed dead and deserted, unless I reckoned a solitary cat and dog, or a few of the tag-rag of the place, creeping unwillingly to work, and passing me, as I thought, with an eye of surprise. The sun, from its horizontal position, blinked right in my face, and quite dazzled me. I fancied I could smell the "dank humours of the night," as they were being drawn up by the solar rays. No wonder

that I soon went inside again, and entered my study. The room smelt close and confined I tried to read, but could not—visited the kitchen again, and put the cook into bad humour by hurrying him about the coffee. Donning my hat again, and now seizing my cane, I proceeded to call upon a friend, who had always assured me that he was an early riser. The servants were scrubbing the house, and but for my dexterity, I would certainly have caught the contents of a water-bucket, as I was coming in rather quickly. "Master was not yet up, but if I came back in half an hour I might see him." How I dragged through the remainder of the wearisome hours, I need not now recount. Suffice it to say, that I shall never forget that miserable morning, and with it, I may add, the whole of the day, which found me peevish, drowsy, and altogether most uncomfortable; while the constant jokes of my friends about my freak, as they called it, added still more to my wretchedness. If the proof of the pudding be in the eating, I certainly had had proof positive with a vengeance.

But, putting experience aside, I have as telling truths in store of another nature. Reversing the *omne ignotum pro magnifico* dogma of some, by adopting the far more tenable maxim that "whatever everybody knows must be contemptible," one would surely be warranted—seeing that the habit of early rising is so universally indulged in by the great mass—in denouncing it as a low and vulgar art, "not fit for a gentleman to learn." Indeed, the application of this golden rule is already so generally apparent in the economy of everyday life, that the wonder is that there should be an exception.

Alcibiades understood this thoroughly when he amputated his favourite dog's tail, at a time when the whole canine breed of Greece wagged their tails in all the luxuriance of unchecked nature. For the same reason, Diogenes lived in a tub: and who doubts that we moderns abhor to dine before candles are lit—disdain to go on foot, or exult in a shocking bad hat, for any other reason than because nearly all the world patronises the very opposite.

To take, however, a nearer view. To *rise* early, we must *retire* early: so that what we gain in the length of our day, we must necessarily withdraw from that of the night. Early risers consequently retire early. But do they retire early for the sake of rising early? By no means. Ask them why they do not lie in bed later. They will tell you they *can't*. They would feel miserable if they did. "Damien's bed of steel" could not torture them more. As we say, vulgarly, "it is the nature of the animal." To make up, therefore, for

their want of sleep, they are compelled to go to bed at an hour when others are only beginning to get lively—when all the faculties of the mind are in their prime working order, and the "sable curtain of night" seems drawn, on purpose, to give them their undisturbed play. All this they ignore, and like Reynard (fresh from his docking in the trap), endeavouring, with Cromwellian twang, to persuade his brethren of the brush to remove "that bauble,"—they would fain induce us to follow their example by *curtailing* our morning rest. We do not, however, mean to find fault with those early folks for what they cannot help; but let them at least cease their boasting, and not literally make a *virtue* of their necessity.

When Diogenes (our friend of the tub, again, but in the wrong box this time) was priding himself, one day, on being able, in the depth of winter, and in *puris naturalibus*, to grasp a bronze statue in one of the public places, he was asked if he "felt the cold?" "Not in the least," he replied. "And where then is your cause for boasting?" was the happy rejoinder; "for if *we* did not feel the cold either, we might do this also."

The good old lights lay the flattering unction to their souls that sleep *before* twelve o'clock is more refreshing than *after* it. I have tried both, and find no difference, except that by going to bed after twelve, one stands a better chance of enjoying that most delightful portion of our rest,—I mean, just when we begin to sniff the morning air and turn ourselves round once more. The very ghosts, who must be admitted to know what's what pretty well, are so enamoured, we are told, of that balmy morning hour that they never "turn in" before it comes, wiling away the night in business and exercise. Besides, to a man of fine feeling, the *breaking* of day must always call up the idea of something disagreeable, which no one should willingly witness,—Mrs. Aurora rudely scratching away at that beautiful cerulean vault, and making her fingers bleed, imitating in her own way the pecking of the bird at its shell, but at the wrong side.

Again, the most eminent men of all ages were, with few exceptions, late risers, spending their evenings and "the wee short hours ayont the twal'" in study and composition. In imitation of the mode of assaying a heap of sovereigns at the mint, let us take half a dozen of names as they come.

Robert Hall "generally rose and breakfasted at nine." Bozzy tells us that Johnson "often held his literary levees when in bed." Charles Fox got up as late as three o'clock

in the afternoon. "There's Charles" (Burke used to say), "while I have exhausted the day, and fatigued myself in reading and business, he is quite fresh. It is no wonder that he is so much more vigorous in Parliament." "Old Nominis Umbra," as Byron called Junius—by his own confession—composed his celebrated letters in the night: while Byron himself may be given as a notable instance of late rising. The great Montesquieu outsat the midnight hour, sometimes even in reading romances: and the merest tyro knows that "Aristotle loved the bottle"—a sad weakness no doubt, proving, however, by implication, as every toper could tell us, that the great philosopher must have been fond of sitting up late. Had all these men risen with the lark, would they have ever written their immortal works, all smelling so unmistakably of the "honest old lamp?"

A seeming exception just occurs to me. Jean Jacques Rousseau, who, with his great imperfections, must ever stand unrivalled in the perfect beauty and fascination of his style, composed generally in the day time. But how? He went to bed—had the room darkened, and the curtains drawn. Impatient of waiting till the night, he took time by the forelock. The pious fraud on his imagination had the desired effect, and his thoughts began to flow.

And this brings me to another argument of great weight. We often retire to rest harassed and perplexed with some difficulty that has beset us during the day. With returning consciousness, a new light breaks in upon us. While lying in bed, apart from the incipient bustle and turmoil of the world, which is now being well aired, and otherwise made comfortable for our reception, we quietly elaborate what has occurred to us (it is a great mistake, by-the-by, to suppose that your late riser always *sleeps* in the morning); and are thus able to resume the labours of the day with our path clear before us.

And, now, I must conclude. The subject is certainly far from exhausted, but my fear is to prove too much; for were all people brought to act upon my way of thinking, the whole world would sleep late; and those who now by their early rising, directly and indirectly, minister to the comfort of myself and others, would cease to benefit us, and we would lose what, a thousand times, salves over the smart of all the shafts of ridicule and raillery which they are daily hurling at our devoted heads.

A.

ROADS AND ROAD-MAKING.

BY AN AMATEUR.

PART II.

We concluded our last paper by asserting, somewhat dogmatically, that European labourers have frequently left this colony from want of suitable employment. This seems somewhat paradoxical, and requires a little explanation. The want of labour to develope the resources of the country is almost the universal cry, and appears to be considered (whether rightly or wrongly) as a remedy for all the evils with which we are or may be afflicted,—past, present, and future. The meaning usually attached to the expression "want of labour" is want of labourers; it is, however, an ambiguous expression, often leading to widely different conclusions. The writer holds the opinion that it is the want of suitable employment which prevents European labourers from settling in the colony, and making it their home.

The only sources of employment for agricultural labourers (exclusive of domestic servants, storemen, cabmen, &c., occupations which can provide for a very limited number) is farm labour, and employment on different works of local improvement. Cape farming, from the absence of fencing, draining, and the comparatively unfrequent practice of manuring, planting, &c., and the almost total absence of fallow land, is entirely periodical, and does not occupy more than half the year. The improvements must of necessity be limited, and unless carried on extensively, and subservient to the periodical demands for farm labour, must leave a considerable hiatus to be filled up by cottier farms, or some other substitute. But so long as local improvements are carried on, and money is spent on them, it is desirable that they should be as much as possible moulded into such a shape as would employ the greatest amount of manual labour, when that can be done without any increased expense; and the plan of the French engineers, remarked on by Sir John Burgoyne, is favourable to this end. There is this difference, however, in the end aimed at by the increase of manual labour in England and France, and manual labour at the Cape of Good Hope, that, whilst the former aim at the employment of a surplus population at times when labour is scarce, our object is to give such a constant supply of labour, at times when

farm labour is not required, as would form a connecting link between the different periods, and give a constant employ throughout the year. This would give confidence to agricultural labourers, and cause them to select country localities for rearing their families in preference to the neighbourhood of towns. This they would do, too, partly from a predilection for accustomed habits and associations, but still more to escape the blandishments and temptations of town life, where they and their children too often fall a prey to intemperance and all its concomitant evils. It is the want of such regular supplies of labour, and such society and habits as European labourers have been accustomed to, that deprives the colony of a large number of the most intelligent, industrious, thoughtful, and best of the emigrants, which it has paid so much money to land on its shores. The practice adopted by the French engineers, which Sir John Burgoyne so much commends, affords the means of increased labour so far as roads are concerned. This will appear pretty clearly from the extracts that follow. He remarks that—

"The following took place with respect to the high roads *(routes royales)* of the *Département de la Sarthe,* somewhat less than 250 miles in extent.

"In 1793, a demand was made to put them in complete order, for	£15,280, or	£60 per mile.
In 1824, the demand was about	9,000, or	36 „
In 1836, „ „	7,760, or	31 „
In 1839, „ „	6,610, or	26 „

"And the roads have become better concurrently with the reduction of cost in maintenance, from being in 1793 in deep ruts, to 1839, when they were in very good order.

"Part of the great road between Lyons and Toulouse, till 1833, was always in a *dreadful state,* and yet cost habitually about £110 per annum per English mile for maintenance, when M. Berthault Ducreux introduced a system of patching, instead of general repairs; since when the road was gradually improved, till it was in a *very good state,* and the annual expense reduced by £13 or £14 per mile."

Another instance is quoted:—

"But more complete illustrations are to be found in the road from Tours to Caen, in *la Sarthe,* which was in 1836 in so bad a state that an official report, of 3rd May of that year, announced that, without a special credit of £2000 towards it, and *a great additional provision of material.* there was danger that it would become impassable. In January, 1837, it was put under the charge of Monsieur Dumas.

"The expenditure upon it for some years before and after that period was as follows:—

YEAR.	EXPENDITURE.		TOTAL.
	Material.	Road labour.	
1832	£872	£195	£1067
1833	708	205	913
1834	745	236	981
1835	671	280	951
1836	684	293	977
1837	584	504	1088
1838	445	456	901
1839	412	420	832
1840	271	392	663
1841	163	445	608

"In August, 1838, this road was reported to be in a very good state, and since then it has constantly improved.

"In 1834, the mail required always five horses, and the road was then so bad that the postmaster lost eleven by the hard work in one year. In 1837, it required four and five horses. In 1838, the number of horses was reduced to three; and in 1843, there were only two of middling quality, and the postmaster lost none from that cause."

There are various other cases of a similar character, for which we cannot find space. This one seems sufficiently convincing of the advantages to be derived, both in the economy of the outlay and in the particular advantage that it has in expending the money in the increase of manual labour in preparing the materials and in care; and, therefore, providing a supply of labour at intervals when farm labour is not to be got, and by that means keeping up a constant stream throughout the year; instead of expending the money in animal labour in covering the road with a quantity of inferior material, which is of no use, and incurs the expense of having it removed as mud or dust, or to be left as a public nuisance, to aid the destruction of what little good material remains in the road, until removed by the violence of the wind, or by heavy rain.

It will be seen by the above table that in 1832 the expenditure was £1067, which diminished in ten years to £608, or about nine parts in twenty-one. In 1832, the cost of material was £872, and cost of manual labour £195; and in 1841, the end of the period, the cost of material had diminished to £163, while the cost of manual labour had

increased from £195 to £445, and concurrently with a reduction on the whole from £1067 to £608. Sir John Burgoyne then goes on to remark—

"That in consequence of the improvements in the roads, they had been able to adopt, in that district, a number of light four wheel carriages, drawn by one horse, where formerly they had used two wheel carriages with two horses, and for the same number of passengers, and travelling slower."

And he further remarks—

"There was somewhat less than 45,000 miles of high road in France, over which it was reckoned, in 1835, that seventy-five horses in draught passed daily, exclusive of passenger carriages, each horse drawing an average of one French ton (1000 kilogrammes, equal to about 19¾ cwt. English), besides the carriage; and the cost of drawing per league (about 2¼ miles English) was reckoned to be one franc (10d). This would make the expense of the draught of merchandise over the high roads in France between nineteen and twenty millions of money per annum!

"These French engineers calculate that there might be a saving of at least one-third, say of £6,000,000, to the public, by maintaining the roads in the best possible condition, from that on which these calculations are made, which they affirm may be done without a fraction of increased expense."

Sir John Burgoyne here remarks—

"That so great an effect is not to be expected in Great Britain and Ireland, because the roads are not in so bad a condition as they were in France when this calculation was made; nor is the accumulation of broken stone so great, and it is relatively much cheaper in Great Britain, and, consequently, the saving will be less; and, further, the climate of France is much drier than that of Great Britain; and, therefore, the roads are subject to less wear, and less removal in the shape of dust or mud."

We may conclude, from the foregoing remarks, that the French improvements are peculiarly adapted to the Cape of Good Hope as regards climate, and to Cape Town and its vicinity as regards the dearness of materials. We have perhaps greater facilities for road-making in Cape Town than most of the cities in France or Great Britain. The fine blue stone quarries at the head of Strand-street afford a comparatively inexhaustible supply of good materials. They are not unusually hard to work for stone of so good a quality, and they have such an elevation, with respect to all parts of the city, as to afford a moderate descent, particularly favourable to the working of cattle; and, therefore, present none of the difficulties of raising the materials from below the surface;

but they are distant enough, and cartage is dear enough, to make economy a vital principle.

It is true we could not, for various reasons, expect so great a saving, relatively, on any part of one thousand miles of road in this colony as the French engineers have made, on parts, and expect to make on the whole 45,000 miles of "Routes Royales" of France. Many of our roads have not been relatively so expensive as those of France, and are yet good enough; the wear on them is not so great. But when roads have to be made, we should never lose sight of these essentials in a road, viz., that it should be hard, clean, even, and durable; and this will be attained by a good form, and drainage given to the foundation, which is really the road; a due judgment and care in the preparation of the materials, which is the covering of the road; and great care in laying it on, and attention after it is laid on. This will ensure durability, comfort, and economy. It is true they need not all be macadamized; but scarcely any locality produces road materials which cannot be greatly improved by careful preparation, and which will not more than pay for the labour. But in the vicinity of towns where the traffic is great and where the material is good, the highest degree of excellence in road-making will ultimately be the cheapest. Roads in the vicinity of cities and towns should be the exemplars for the whole country, should form an unerring standard of reference, and should, in fact, be under such skilful management and practice, in design, construction, and repair, as to be (in a new country, where the principles of the art are not well developed) normal schools for training the tyros by whom future operations are to be carried over the whole colony.

Sir J. Burgoyne further remarks, on the form of labour necessary to give the minute attention so strongly recommended by the French engineers, that—

"The principle of *increasing* and minute attention to the road requires a different mode of proceeding from that of occasional working at intervals. It will require men on constant duty for every part of each district.

"In England, men have been employed, on this principle, called *mile-men*, and with great success.

"In France, they are very general, if not universal. They are called *cantoniers*.

"The mile-men in England seem to be considered generally as a class of gangsmen, and have labourers under them in proportion to the work to be performed. In France, the *cantonier* frequently does all the work.

"The object of the preceding remarks is to endeavour to establish—'That to obtain the best roads requires much more *constant* attention than is now bestowed upon them; and that there is great reason to believe that, generally, this may be done without any additional outlay.'"

Sir J. Burgoyne here concludes his remarks on the practice of the French engineers, and devotes a few pages to observations and explanations, one or two of which we shall quote as remarkable:—

"The employment of the toughest and best material for the broken stone is of far more importance on this than on any other system; the reduction in the quantity consumed will, under most circumstances, make up for the excess in its price; and that reduction essentially lessens the amount of *every species* of the work.

"One great advantage of a hard, even crust, at all times, is that it will bear far greater weights with equal thickness. An instance is mentioned, in one of the French works, of a load of nearly fifteen tons being drawn by thirty-three horses on a carriage having wheels of $6\frac{1}{4}$ inch tires, over three quarters of a mile of good macadamized road of only four inches thickness of metal, without leaving any perceptible trace; therefore, a perfect road, kept to an habitual thickness of eight or nine inches, will not only be sure to be perfectly substantial, but will, in times of need, bear a considerable period of wear and tear without fresh supplies of material; and the reduction being very gradual, there will be a power of materially regulating the labour connected with that supply by the demand for it. Thus, at present, the given quantities of stone must be provided throughout every year, and at precise periods; whereas by the proposed modes, the supply may be reduced in seasons, or for a whole year, when labour is plentiful, and increased when there happens to be distress for want of work."

Sir J. Burgoyne here states that "when macadamized roads are patched, the materials should be picked up to the depth of about half an inch, in heaps of an oval or rounded form, rather more at the sides than in the middle; the stone used for this should be broken fine, to $1\frac{1}{4}$ or at most $1\frac{1}{2}$ inch ring, and rammed down with a rammer with a surface of about six inches diameter, and weighing from eleven to twenty-two pounds;" and he also recommends a "large mallet, with a surface of about twelve inches diameter, for flattening and consolidating newly made roads, when a roller cannot be obtained;" and also recommends its use, after the passage of carriages, in preference to the rake.

On watering roads, he recommends that all dust should be removed previous to watering. This, however, is a matter about which road economists in the vicinity of Cape Town

need not give themselves much trouble, as the south-east wind does it admirably for them.

It would be wrong to conclude that because railways have drawn public attention from macadamized roads in England, that their value as an improvement on the old system has not been understood, or that their high style of excellence as comfortable, durable and economical roads has been undervalued by English engineers. But the Telfords, McAdams, and Nimmos of the last generation have passed away and been replaced by the Brunels, Stephensons, Biddulphs, Vignoles, and Laws of the present day, whose attention has (except the latter) been drawn to manipulations in iron, rather than stone.

Sir James McAdam, in his evidence before a select committee of the House of Commons, states that "the average expenditure in the two items of horse and manual labour for the two years previous to his undertaking the Epsom roads was, *horse labour*, £1044; *manual labour*, £359;" and that, under his management, "the proportions for these two items varied as follows, viz., *horse work*, £227; *manual labour*, £1146 The million and a half expended annually on the parish roads would, by an improved method of preparing the material, be changed in the same proportion;" and it is further stated, by a high authority, that "it would be reduced in its total amount from a million and a half to a million, or a reduction of one-third, to which the French practice bears a very close analogy."

In a country so wealthy and populous as England, and with such an irrepressible spirit of enterprise, public improvements will attain the highest degree of excellence. But all countries, and particularly colonies, are not so favourably situated. And when there is a scarcity of skilled labour and of capital, the prevailing opinion will be that mediocrity, or something below it, in public works is good enough; but communities or combinations of men are subject to the same influences as individuals; and it is particularly true in public improvements, that if we aim at a high degree of excellence, we shall probably attain respectability, but if we are satisfied with mediocrity we shall certainly fall short of it.

The advantages which we possess for the attainment of good roads, at a comparatively small expense, are very considerable, and free from many difficulties to be met with in parts of Europe. *Frost, that great destroyer of roads,* is unknown. Our winters are so mild as to offer little or no interruption to progress; material is always attainable within a moderate distance, frequently good and abundant, and generally costs little or nothing but the labour in procuring it;

and we have much natural good road, made quite suitable for our wants at a small expense; but these very advantages cause the public mind to rest satisfied with a low view of the qualities and advantages of good roads.

We do not, indeed, advocate massive and costly public works in general. They ought to be erected for the present generation, not for the future, and adapted to the wants and means of the people for whose accommodation they are constructed. In a young and rising community, there is such an elastic spirit of expansion in an onward course, that what suits the present generation very well, may be altogether inadequate to the wants of their descendants; and the direction of our public roads may in forty years' time be found unsuitable to the more fully developed resources of the country which are hidden from our eyes. But even the best roads, constructed with the greatest skill, and of the best material, and preserved with the greatest care, wear so rapidly that they hold much the same position, in comparison with other public works, that the coat which a man wears in his daily occupations does to his dwelling-house or other permanent property. They are in constant requisition, and require to be constantly renewed; and the better the material, and the greater the skill in the construction, and the care with which they are preserved, so much the greater will be their durability and economy, and the accommodation and comfort which they afford. Macadamized streets and roads are a very valuable description of public property; very costly in the first instance, and when skilfully constructed of good material, and carefully preserved, and slightly watered, they are the *ne plus ultra* of roads, and will bear an astonishing weight, as already shown, and give immense wear, as will be shown in our next paper, and are among the most ornamental, as they certainly are the most extensively useful public works in a country.

CAPE POLITICAL TROUBLES IN 1706.*

The formidable titles given below are prefixed to some cumbrous pamphlets in folio, to be found in the Dessinian department of the Public Library, and in some private collections in this colony.

*1. Klagtschrift, in den jare 1706, aan Haar Wel.-Edele Hoog Achtbaarheden, de Heeren Bewindhebbers ter Illustre Vergadering van XVII.

Memorial of Grievances, to the Honourable Right Worshipful the Directors forming the Illustrious Assembly of Seventeen, in the year 1706.

2. Korte Deductie van Willem Adriaan van der Stel, gewezene Extraordinaris Raad van India, en Gouverneur aen Cabo de Boa Esperance: tot

Two of them (the "Deductie" and "Contra-deductie") contain a minute detail of the differences which arose between the rulers and the ruled at the Cape of Good Hope, a century and a half ago,—in the words, on the one hand, of the freemen of the colony "weighed down by pressing need, through the unrighteous tyranny of the present Governor, Willem Adrian van der Stell;" and, on the other, of the accused despot himself, justifying his conduct to his honourable masters, the East India Company, and declaring "that all these villanies have been moved to his injury, in that he regarded too well his duty and the service of the honourable Company to gratify the discontented free burghers, in his endeavours, especially to restrain their smuggling and illegal traffic." The "Neutrale Gedagten" (Neutral Reflections) comprise professedly an impartial review of the Governor's defence by an indifferent observer,—but posses all the bitterness without much of the eloquence or poetry, of the denunciations hurled by Victor Hugo against the Napoleon of the second empire.

These pamphlets, if this be their right designation, were published at Amsterdam. The Cape afforded as yet no typographical facilities for scrutinizing the conduct of public affairs. Though Holland was the cradle of the liberty of the press in Europe, the principles of Dutch colonization could not permit the perilous use of types in the distant possessions of that country. Nearly a century elapsed from the time to which we refer, ere the mystery of "the press" was revealed in this colony, during the first English occupation. Even the local laws were not printed in the good old days. The imposition of an unexpected fine at the suit of the fiscal occasionally brought to the knowledge of an unwitting culprit that a new decree had been passed by the Court of Policy, and had been legally promulgated by means of a caligraphic copy concealed from the public view in the Court of Justice. One of the humble prayers of the memorial which the delegates Van Reenen, Artoys, Heyns, and Roos, presented to the directors in

destructie ende wederlegginge van alle de Klagten, die eenige vry-luyden van de voorz: Cabo, aen de Edele Achtbare Heeren Bewindhebberen van de O. I Compagnie over hem hadden gedaen, &c., &c.

Brief Deduction of W. A. van der Stel, late Councillor Extraordinary of India, and Governor of the Cape of Good Hope, in destruction and refutation of all the accusations, which certain freemen of the aforesaid Cape have made against him to the Honourable and Worshipful Directors of the E. I. Company, &c.

3. Neutrale Gedagten over zekere Korte Deductie die den Edelen W. A van der Stel heeft believen in openbaren druk uit te geven.

Neutral Reflections on a certain Brief Deduction which the Honourable W. A. van der Stel has been pleased to put forth in print.

4. Contra Deductie ofte Grondige Demonstratie, van de valsheit der uitgegevene Deductie, &c., door de twee gemachtigden van eenige der Kaapsche inwoonderen, Jacobus van der Heiden en Adam Tas.

Counter Deduction, or Perfect Demonstration of the falsehood of the published Deduction, by the two agents of some of the inhabitants of the Cape: Jacobus van der Heiden en Adam Tas; 1712.

Holland, on behalf of the suffering citizens (de kwijnende burgerij) of the colony in 1779, was that "a printing office may be established, whereat the most important of the existing ordinances, and such as shall be enacted in future, shall be obtained at a reasonable price." The prayer was naturally rejected.

Even when the art was introduced, its use was restricted to the publication of proclamations and official notices in the *Gazettes*, which were commenced in 1802, under the superintendence of Sir John Barrow,—adopted under the Batavian Government by Commissioner General De Mist and General Janssens in 1803,—and continued after the second English conquest of 1806. With the exception that an occasional sermon by the colonial chaplain, which met the Governor's approval, issued from the official press, and that ponderous rhymes sometimes celebrated the vice-regal virtues, little was committed to type, save Government orders and advertisements, until 1824. And finally, so lately as in 1827, after a desperate struggle by the authorities of the day to retain their cherished despotism, it was decided by the British Government that public opinion respecting public matters might thenceforward, without being deemed sedition, find expression in a newspaper or book.

Necessarily, then, publications like those prefixed to this article, were, during the last century, of very rare occurrence;—and from this rarity, are very valuable. Under extraordinary circumstances only, could the voice of the inhabitants be heard beyond the colonial limits. Within those limits murmurs were soon hushed. Although, therefore, owing to the laudable official regularity established throughout their colonies by the methodical Dutch, the Colonial Office possesses a nearly complete manuscript official record of public transactions, in numerous tomes, these at best afford very imperfect material for history in the absence of contemporary anti-official and non-official criticism. English Acts of Parliament present but an incomplete view of historical England—often, indeed, a thoroughly false one. Ancient statutes, for instance, display Henry the Eighth as a paragon of saintly meekness and forbearance,—a miracle of religious virtue,—though historic truth reveals a very different character of Pope Leo's "Defender of the Faith," and the hero of the English reformation. Modern legislation, carefully preserved in the statutes, subjects Cardinal Wiseman to fine and imprisonment, should he venture to assume the archiepiscopal title bestowed on him by Pius IX,—but the Cardinal Archbishop of Westminster disregards the prohibition, and yet may not indulge the hope or fear of martyrdom in the nineteenth century. So little do solemn official acts or public documents, taken by themselves, reflect the actual state of the period in which they bear date. Notwithstanding, therefore, the wealth of our archives, it will readily be understood that to such as take an interest in the early stages of our colonial history, this attack upon a Governor of the early part of the last century, and his apology, are a great acquisition,—furnishing together a vivid and faithful

portraiture of the extent of civil liberty and political right vouchsafed to the citizens of its transmarine possessions by the republic, whose name was synonymous with freedom in Europe, but in whose colonial system, under the administration of monopolist joint-stock companies, the rights of freemen were at all times a grievous mockery.

Upwards of half a century had passed, since the occupation of Table Valley by Riebeek. The original plan of colonization,—which was commenced in 1657, five years after the settlement, and which consisted in releasing servants of the Company from their engagements, with the grant of land on certain conditions, for the purpose of providing the passing mercantile navy with grain and vegetables, the natives supplying the cattle,—had about the year 1680 been extended; and at that time some emigrants from Holland, and subsequently, about 1685, a number of French refugees from the persecution of Louis XIV, were invited to adopt this country as their home. The accustomed iron rule was soon exercised over these new colonists, whom it was necessary to train to the required submission, by the discipline which had long since crushed the spirit of their unhappy precursors,—significantly styled by one of the Indian Commissioners, who visited the Cape in 1676, "onvrye lieden," or slaves, in contrast to the name by which they were generally known, "vrye lieden," or freemen. Some impatience was at first manifested; but all who ventured to believe that they had come hither to enjoy the privileges and immunities of citizens of the Dutch Republic were speedily disabused of their error. The empire of "the Company" knew only colonial tyrants and the mass upon whom these tyrants trampled. While the Executive, consisting of the Governor and the Grand Council or Court of Policy, was at the same time the Legislature, and constituted likewise the Court of Justice, great facilities were afforded for creating novel crimes, obtaining judicial condemnations, and enforcing vindictive sentences: and the majesty of the autocrat of the Castle of Good Hope could not, when offended, be expected to resist the temptation which these facilities presented. An appeal from acts of the Government and from sentences of the court lay indeed by petition to the supreme Indian authorities at Batavia; but wo! to the wretch who was bold enough to seek relief against oppression or to impugn the soundness of a judicial decree. His ruin was at once resolved. In the days of Van der Stell, and so lately as towards the end of the last century, the penalty for so grievous a fault was imprisonment, sometimes attended with serious ill-treatment, and not unfrequently deportation.

In February, 1706, the return fleet, carrying home to the Netherlands the annual fruit of the Eastern adventure, anchored as usual in Table Bay for refreshment. But beyond the ordinary intelligence, stirring news reached the occupant of the castle and his myrmidons. Their vigilance had been eluded. The grievances of the people, debarred from any public expression, had found vent in memorials secretly planned. Amid the compulsory calm

which the colony seemed to enjoy, a successful attempt had been made to convey to the Governor-General at Batavia complaints of the rigour exercised at the Cape on the subjects of the East India Company: and, in the petition, not only the Governor's abuse of his authority in this respect, but his employment of the public means for the accumulation of his private wealth was revealed. When, on the arrival of the fleet, the rumour was spread that a document of this nature had been forwarded to the supreme authority of the Indies, Van der Stell's rage was extreme. He knew not yet who had dared to sign,—who, especially, had ventured on the extreme audacity to frame this petition. But he was determined to discover and to punish; and his scouts quickly supplied a clue. At this very time a similar petition was in course of signature for the purpose of transmission, to the direction of the Company in Holland, by the fleet which had just arrived. This, being done with the utmost secrecy, was unknown to the Governor until, during the inquiry instituted by him to trace the authors of the first document, he received information which led to the apprehension of a farmer at Stellenbosch, named Adam Tas. The proceedings taken against this man, suspected of having part in a petition which attributed serious blame to the Governor and other important functionaries, were necessarily most severe. It will presently be seen that he had been guilty thereby, in the opinion at least of the colonial authorities, of no less a crime than high treason—the *crimen læsæ majestatis* The narrative of the arrest of Tas shows the weight attached to his capture; and likewise the uses to which members of council were applied in 1706:—

"Hereupon His Excellency and the Landdrost Starrenburgh, independently of the political or judicial council, framed a resolution that the aforesaid Adam Tas should be seized, with all papers which might be found in chests and boxes, and other places of concealment in his house; and that he should be at once carried off to prison in the castle. His Excellency added three commissioners to the Landdrost—the hon. members of council Willem van Putten and Jan Brommert, and the burgher councillor Hendrik Bouwman,—and gave them his carriage that they might pass over the Stellenbosch road the more quietly by night, with injunctions that they were to act according to the Landdrost's orders: and, in addition to the ordinary attendants, His Excellency provided some armed soldiers, who were, under the command of the Landdrost, to guard all the doors and approaches of the house of Tas, with pieces ready loaded and cocked, and not to permit the entrance or egress of any person.

"This honourable company having thus departed under the private and particular order of the Governor, and having arrived at the house of Tas before sunrise on Sunday, the 28th February, with the addition of two Heemraden and the secretary, the Landdrost at once secured all the approaches, rushed with his colleagues into the bedroom of Tas, who, as well as his wife and children, was still asleep, and ordered all his boxes and chests to be searched for papers, he being commanded to make immediate preparation for a journey to Cape Town. Upon this, after the various chests and boxes had been searched and sealed by the secretary, Tas was taken into custody by two soldiers, forcibly ejected from his house and hurried to Cape Town, his desk being at the same time sealed and carried off."

The nocturnal expedition through the sandy Downs, and the

Landdrost's spirited assault of the "free burgher's" castle, were crowned with even greater success than had been anticipated. Valuable spoil was conveyed to His Excellency. The seizure of the desk revealed the entire conspiracy; for amid the private papers was found a copy of the memorial prepared in secret to lay before the "Heeren Majores in Patriâ" the delinquencies of the Governor, and to implore redress.

The honourable the "Secunde Persoon," Samuel Elzevier (the colonial secretary of the day), who had been deputed with the Landdrost to conduct the important examination of the desk, bore the treasure in triumph to the Governor's residence, together with a no less valuable list of the names, which had been attached to it, on a separate paper. "Whereupon," says the *Contra-deductie*, "His Excellency rejoiced in the acquisition of this precious jewel;" and, on reading through the catalogue of names, "became so enraged that he determined to persecute us with fire and sword, and to doom us to the gallows and the wheel."

Tas was cast into gaol, in solitary confinement. His fellow-citizens at once addressed a humble supplication to the Governor that he might be released on bail, a large number of the most substantial residents undertaking to be his sureties. Their prayer was met with the indignant answer, that a man guilty of manifest high treason was not entitled to the indulgence accorded to minor offenders.

The memorial which excited this commotion, and which contains the articles of impeachment against the South African Verres, is not the composition of a Cicero or a Burke. Petty grievances, which almost provoke a smile, confusedly mixed up with serious complaints of the infraction of the most sacred rights, give an air of wearisome triviality to the whole, at variance with the evident importance of the document in the eyes of all the parties immediately interested, and, as subsequently appeared, of the authorities at home. At the risk of tediousness, some extracts follow from the most weighty portions. Whether the statements be true or false (probably they contain truth, occasionally exaggerated into falsehood), much light is thrown by them on the relations between the Government of the Cape and the inhabitants, and on the progress of the settlement, after an existence—it is scarcely just to say colonization—of more than fifty years. That such were the questions of moment agitated between the governors and governed offers, in itself, the severest comment on the state of affairs in the colony. The petition is addressed to the Chamber of XVII, constituting the general direction of the Dutch East India Company, and commences in a tone of supplicatory remonstrance:—

"Pressed down in utmost need, we, in all dutiful submission, take the liberty to utter our righteous complaints to your honours; and to this step we are the more constrained, because, by reason of the unrighteous and haughty tyranny of the Governor, W. A. van der Stell, we are not alone grievously oppressed, but the rather treated as slaves; and, inasmuch as we are free-born men and subjects of their High Mightinesses, it is readily to

be understood that such unwonted treatment is doubly hard to be borne. We have, therefore, determined to lay before your honours, as impartial champions of right and justice, as briefly as we can in the sequel, wherein this oppression consists."

The Governor's grasping disposition in obtaining grants of valuable land for himself, contrary to the law, and in cultivating the property thus improperly acquired at the public expense, is thus exhibited:—

"His Excellency has, about twelve hours from the Cape,* an immoderately large estate, as grandly built upon as if it were a whole town. Besides this, he possesses huge cultivated lands, on which fifty farmers might gain a livelihood. He annually sows great quantities of wheat, and has a vineyard containing 400,000 vines. He has likewise 800 head of cattle, and upwards of 10,000 sheep. On this estate there are more than sixty of the Company's servants,—the head gardener of the Company being the superintendent,—with sub-officers, sailors, and soldiers, all of whom draw rations and pay. Among them are masons, carpenters, painters, cabinet-makers, carvers, wood-cutters, herdsmen, thatchers, millers, wheelwrights, and others. He likewise employs on the place one hundred of the Company's slaves, male and female, besides having the services of the Company's smiths and waggoners. His waggons, ploughs, &c., are made of the Company's iron, and the wood-work of wood cut in the Company's forests."

Besides this grand establishment,—engravings of which attached to the "Deductie" and "Contra-deductie," display the mansion, farm-houses, parks, and vineyards, in all their splendour, with lions, tigers, and buffaloes gracing the background in the direction of the Hottentots Holland mountains,—the Governor is accused of having fifteen cattle-stations beyond that chain (Overberg).

The Chamber of XVII are next told how His Excellency had stocked his farms. It must be borne in mind, to understand this part of the remonstrance, that barter with the natives—almost the only kind of traffic that could exist—had at first been prohibited to the colonists, under severe penalties, then for a while permitted. Afterwards, from time to time, as suited the whim or interest of the authorities, the permission was capriciously withheld or confirmed. Van der Stell's mode of acquisition is thus described:—

"In order briefly to point out by what means the Governor has, in so short a time, become proprietor of so much cattle, your honours are hereby informed that the Governor and his brother, Frans the younker, the clergyman Petrus Kalden, and others of the Company's servants, were the first who undertook the barter of cattle: for this was done by them in an underhand, secret manner, without the knowledge of any one else that the traffic had been opened. In order to carry on this trade, they dispatched a large number of men, with powder and lead, who bartered indeed from some, robbed others in most scandalous wise, and forced the cattle from them; and in such manner, the barterers returned home well provided. For the rest His Excellency has, by foul means, filched cattle from several burghers, &c. Now, when the Governor and the other gentlemen had bartered abundantly, he declared the trade open; but after a little time, this was again forbidden by placaat. Upon this, when the directors again declared the free traffic open to the inhabitants, the order was withheld by

* Twelve hours on foot—about thirty-six miles. This "grand estate" was at Hottentots Holland, and the mansion near the present house of Mr. Jcs. Theunissen.

the Governor, while he was himself busied with barter in his own behalf, having, for the purpose, sent away his superintendent, who returned with 300 head. The improprieties committed herein have excited the Hottentots ; and these, for the injuries suffered by them, wreak their vengeance on the innocent."

A special article is devoted to the clergyman who has just been mentioned. He and two others formed the entire clerical staff at that date. The others, Le Boucq and Beek, were stationed at Drakenstein and Stellenbosch. Kalden was the court chaplain at the Cape, and well understood the duties of that office. He not only spake not evil of dignities, but respected them over much. It is he of whom it is related, that when the Governor honoured the church with his presence, he omitted the decalogue from the service, lest some one or more of the commandments might disagreeably affect His Excellency's conscience. His reverence seems to have had somewhat less regard for the spiritual wants of the vulgar mass than for the feelings of his superiors. His performance of his duty is thus sketched : —

"In few words, we shall add something more of our minister. Be it known to your honours that he too is one of the largest farmers ; and notwithstanding that he hath, beyond his other gains, 120 florins per month from the Honourable Company, it is nevertheless certainly true that he makes no account of religion, inasmuch as he is much more interested about his cultivated lands than about his pulpit. He sometimes, for a fortnight together, enjoys himself on his farm ; and then something or another is read in church by the clerk. Now a great church has been built of the moneys of the poor, and of this building the minister was the principal advocate ; but 'tis more than pity that the church must be so often empty, because the clergyman enjoys himself in the country : which is not alone a grievous injury to the poor, but a scandal to the congregation.

"It hath often happened that people have come a considerable distance from the country to have their children baptized, and others to be joined in matrimony, but were compelled to return home, sore disappointed, because his reverence was attending to the increase of his wordly goods at the farm. It hath also happened that about the time of the administration of the Lord's Supper he is away for his pleasure, and deputes an elder and the clerk to perform the ministerial visits ; and this is undoubtedly likewise against his duty. But how improper soever these things may be, he little cares, as he has ingratiated himself with the Governor. It will rarely occur that the Governor is at his country house, but the clergyman betakes himself to his likewise. Of an absence for two Sundays, and that frequently, he thinks nothing ; and dares to say, 'If His Excellency and the second person are not at the Cape, what should I do there ?' Your honours may hence judge how little respect this so called pastor has for religion. We could add many instances of his conduct ; but these would be of a coarse nature, which we endeavour to avoid."

After a resumption of the attack on the Governor, with especial mention of the persecution to which those whose farms were near his own were subjected, his father, the ex-Governor (old Simon van der Stell, who had reigned from 1679, and in 1698 retired in favour of his son), and his brother are thus introduced :—

"In like manner, the ex-Governor deals with his neighbours, injuring them as much as he can.

"The Governor's brother, the so called younker Frans van der Stell, too, who is full of mischief as an egg of meat, treats his neighbours in the most intolerable manner : relying on his brother the Governor, he doth as much

evil as his bile suggests. He is a most dangerous instrument,—yea, a pest to the Cape, having his enjoyment in annoying the free burghers, considering it an honour to practise deception ; and if it were in his power to destroy all the burghers in one day, he would not take two for the purpose."

Next follows an exposure of an attempt on the part of the "younker," at the Governor's request, to bribe others to assault and cudgel two "ancient burgher councillors," so "that they should feel it," these old men having become obnoxious to the Governor because they had declined to give up their property at his pleasure; and thereupon, "His Excellency instigated his brother Frans, who is accustomed to glory in such shameful and unseemly conduct, as if it were something honourable,—of the which we beg your honours to consider whether these be not unchristian acts."

This part of the petition is thus dismissed:—

"In truth, from the actions of these three gentlemen, it must be concluded that they not only imagine that they have licence to do what they please, but that the whole land is their freehold, inasmuch as they attempt to play the master over all ; and were their power but fully equal to their will, most undoubtedly all the burghers would be banished the country."

Regard for space, and for the reader's patience, does not permit more of this lament to be added in the words of the remonstrance itself. Its general tone and style must now be sufficiently understood, and the purport of the rest will be given in a very abridged shape. After some minor topics of complaint, the grievances of the producers of wine are prominently brought forward. The owners of vineyards at Stellenbosch and Drakenstein, for a long while *laudatores temporis acti*, may rest consoled that their lot was cast in this iron age, when they learn that a period existed in which their forefathers, having first deposited a tithe of their vintage at the Government stores as a "royalty," in vain sought buyers for the remainder, unless the Company, or the "farmer" of the right to vend wines (pagter) were inclined to purchase at the prices which the Government fixed: in which the privilege of supplying foreign ships, which was allowed from time to time, was withheld whenever men high in authority had wines of their own to sell: when the Governor compelled the poorer planters to deliver their vintage to him at 10 to 20 rixdollars per leaguer, and, after preparation of them in the public stores and at the public expense, sold them on his private account to ship captains at 100 ducatons (or 150 rixdollars). These things can scarcely be credited, but the petitions of 1706 roundly assert their truth.

Lamentations follow of corn farmers compelled to part with their grain at half the price, which His Excellency contrived to secure for his own from his honourable masters,—of residents near Fishhoek and Kalk Bays, who complain that because the Governor and his brother required fish for their numerous slaves, the right of fishing was denied to all others, "as if these gentlemen had leased the public waters for themselves alone in perpetuity,"—of grantees of land who reveal that title deeds could not be obtained

unless the solicitation were accompanied with the necessary *douceur*, "for that His Excellency listened gladly to reasons that jingle,"—of owners of slaves, who assert that the Governor's farms were a resort for runaways, into which, it would seem, no fugitive slave law could penetrate; while numerous instances of private spite, scattered among the general accusations, add, if possible, to the blackness of the picture.

"All which things"—for it is impossible to resist the addition of the concluding passage, in which the indignant scribe of the free burghers has striven to employ an eloquence worthy of the occasion,—

"All which things are incontrovertible proofs that the Governor is rightly deemed a scourge of the land's inhabitants, in that he not only envies them any prosperity, but would exhaust them utterly, in as far as in him lies, and expose them to perdition,—using for his maxim 'that a ruined community is easily ruled.' But this is no marvel, seeing that he is callous to virtue, and has not the least respect for an honest man; but vile vagabonds who earn a livelihood by rascality and thieving are the Governor's best friends; and such are in high grace with him, for they fill his hands. Further, he lends his ears to vain babbling men and flatterers,—being a coward before the truth."

The proceedings, which ensued on this full revelation of the designs of the disaffected, picture the Governor's rage. Naturally, if the statements were false, vengeance must fall on the liars who had held him up to infamy before his superiors. If they were true, his wrath would be equally terrible against the worms who had turned upon him, and whom he yet could crush. True or false, the accusations must be made to appear foul slanders.

Van der Stell at once attempted to enforce a retractation of the charges, to be transmitted as evidence of the falsehood of the petition which had been conveyed to Batavia. At the same time an "attestation" of the uprightness of his character and of the respect in which he was held was drawn up, and every well-disposed burgher was required to affix his signature to this novel public document at Government house. The means adopted to effect these objects were characteristic of the man and of the time. Terror was to be struck into all who sympathised with the "traitors." An aged and infirm man of seventy, a retired burgher councillor, who had been the first to put his name to the memorial, was at once, without any inquiry, deported as a prisoner to Batavia,—four and twenty hours being granted him to prepare for his departure. Remonstrances that it was probable that years and infirmities would render the old man incapable of surviving the hardships of such a voyage, were unheeded. The hope that an incurable disease under which he laboured might on the passage have its result in death, seemed rather to accelerate the urgency of his departure.

A "broad council" was summoned on the 4th March, 1706, This was done by the addition of the captains of some of the ships in the bay to the colonial "Court of Policy." The fruit of their

deliberations appeared in a proclamation levelled at "the wicked inhabitants who have entered into conspiracy against the lawful authority, and have obtained signatures to libellous writings to the destruction and ruin of the people of this country." All persons are interdicted from entering into any league with the malicious and turbulent, and forbidden to sign any slanderous papers under penalty of the punishment due to sedition. All who dared to invite others to join in the opposition to the Government, "shall be punished with death, without distinction of persons, as disturbers of the public peace, for the example of all others." Every man suspected of taking part in the "disgraceful and slanderous conspiracy" was at once to be apprehended. For those who had been misled by the "malicious ringleaders" there was grace. They are informed that they might appear before the authorities and avow repentance for what they had been led to do.

Seizure and incarceration of the persons, whose names were on the list so opportunely discovered at the house of Tas, proceeded simultaneously with a most hospitable reception of the "friends of law and order" at the Governor's residence in the Castle. Copious draughts of beer and pipes of tobacco rewarded the faithful subjects who were prepared to testify, in confutation of the "wicked and evil-intentioned mutineers," that the Governor possessed virtues, which, were it not that he unfortunately was a Protestant, would have entitled him to immediate canonization Some gratitude was indeed due to friends who, in an hour of difficulty, had no hesitation in vouching of His Excellency "that we know him as a man of all worth and virtue; in his conduct and government a living example of modesty and of zeal for the general welfare, christian, religious, easy of access, courteous to admit, listen and reply to all; and, finally, gentle and kindhearted. For the entire period of his rule he hath shown himself as of a peaceful nature; sincere and faithful, as well to the interests of our lords and masters (the East India Company), as to the general prosperity of the citizens, protecting the honest and a terror to evil doers."

These virtues, gentleness and mercy especially, were scarcely exemplified in the proceedings taken by him in the Court of Justice. This narrative has occupied too much space to give these at any length. Suffice it to say that the greater number of the judges, who had formed the majority of those who enacted the angry "placaat" above given, now were zealous to carry it out. The luckless men, whose ability to write their names had thus brought them into disgrace with their lord, were captured by the soldiery and the police in their houses, in the streets, wherever they could be found; cast into prison, tortured with interrogatories by their judges and prosecutors; and if they did not at once recant, left to rot in gaol for an indefinite time, or banished beyond the seas. The sacredness of personal freedom, which forms the boast of the Dutch as well as of the English law, but which has not, even in modern days, so consistently guided the conduct of the Dutch as of

the English courts, was utterly forgotten or trampled under foot. There was no trial whatever of those who were seized. A kind of black hole seems to have been set aside for such as could not at once be terrified into retractation. One man who would not recant was, for his obstinacy, placed in the condemned cell with a slave convicted of murder and arson. Others were compelled, under threats of expulsion to Mauritius, and the utter ruin of their families, to declare that what they had before signed was pure invention. A burgher councillor, named Henning Husing, and four others of the most influential inhabitants were, in the Governor's thoughtless rage, hurried on board of one of the ships bound for Holland. The Governor quickly repented of his imprudence in sending them where their presence might obtain justice for themselves, or, at least, cause injury to him. He himself pursued the ship in a galliot to recal his rash order; but the vessel kept on her way, and the arrival of his prisoners in Holland was the signal for his ruin.

While he had thus unwisely despatched the messengers whose tale was destined to effect his fall, the violence with which he pursued their friends was unabated. Nine residents of Stellenbosch and Drakenstein—Heemraden, Burgher Captains, &c., had received an intimation to appear in Cape Town. Hearing of the treatment to which their fellows had been obliged to submit, they disobeyed the order, and concealed themselves in the then distant country about the Twenty-four Rivers. Mounted soldiers, under the command of the Landdrost Starrenberg, one of the chief magistrates, were placed on their track,—a proceeding compared by the French refugees to the *dragonnades* of Louis XIV. The fugitives were however successful in eluding their pursuers. In their absence, they were convicted of sedition, declared infamous, condemned each to a fine of 200 rixdollars, and sentenced to imprisonment, with hard labour, at the Mauritius for five years. Three of them were afterwards taken, and incarcerated until they could be sent to their penal destination. But the sentence was never carried out. For in April, 1707, the persecutions were suddenly closed. The prisoners, sentenced and unsentenced, some of whom had been in gaol for more than thirteen months, were liberated. A despatch had been received, which plainly showed the Governor's error in hurrying off Husing and his companions, who had gained powerful friends in Holland. It contained the appalling intelligence that all the principal officers of the Government were recalled.

"We have had," say the Chamber of XVII, "the dissatisfaction to perceive that grave commotions and differences exist between a great number of the colonists and the Cape Government. Much paper hath been covered with complaints and refutations, which have occupied much of our time and given us much trouble. Of all this we say no more than that we expect that such like matters will not again arise; and for the conservation of the public peace, and for further good reasons, we have resolved, and do now order,

that the Governor, W. A. van der Stell, the 'Secunde Persoon,' Samuel Elzevier, the clergyman Petrus Kalden, and the Landdrost Johan Starrenberg, shall be removed and sent hither, retaining their rank and pay, but without any authority or office."

The "younker" Frans was likewise ordered to leave the colony. The grants of land to the Governor were cancelled; the necessary farm-buildings on the property were to be valued and paid him; but "the great mansion shall be razed to the ground, inasmuch as such edifices as display ostentation and are erected more for the sake of grand appearance than for the use of the Company's servants, as well at the Cape as in India, have always annoyed and displeased us: and this is to be observed as a general remark and order for the information of all concerned."

The appointment of a successor, the release of all prisoners, and the declaration of the new Governor, Van Assenburg, that "all the colonists departed and detained on the ground of alleged conspiracy and rebellion, are restored to their former position and honour," closes this scene of our history.

It was on Van der Stell's arrival in Holland that he published the *Deductie*, to clear his fame from the imputations cast on it. His principal defence was, that the hatred of a small, but violent, portion of the colonists was excited against him in consequence of his staunch adherence to the orders of the Company, in the prevention of illegal trade, on their part, with the natives; and of smuggling transactions with the Dutch and foreign ships. On this ground they had invented the falsehoods which had led to his ruin. The annexures, indeed, exhibit the inhabitants in as unfavourable a light as that in which he had been placed by their memorial. In reply to his charges, Tas, of whom so much has been related, and Van der Heiden, one of the prisoners for "rebellion," printed the *Contra-deductie* in Holland, reiterating the former accusations, with others superadded, and minutely describing the discreditable manner in which certain testimonials to character and recantations of complaint had been obtained by their late oppressors. It interests us little which of the contending parties in this crimination and recrimination departed most frequently from the truth. Both equally show the wretched state of the country and its government.

This could not be otherwise. The temptations held out to men with beggarly salaries, attached to situations of power, to abuse that power and employ unjust means in accumulating wealth, were too great to be resisted. Hence the competition of the Governor, the "Secunde Persoon," the Landdrost, and others, with the free burghers in the pursuits which alone could afford the latter a livelihood,—a competition in which the unofficial tillers of the soil were placed at a miserable disadvantage. It would have been strange if grievous discontent had not been thus excited, and the rebellious feelings of which Van der Stell complained had not been displayed. The planters, already burdened beyond measure,

paying a tax of one-tenth of their produce for the liberty to take their wares to a market, where they could dispose of them only at the prices fixed by their sole purchaser, found themselves excluded even from this poor chance of bettering their estate by those who were placed over them as governors, judges, and pastors. The wonder is not that they rose against the men who thus injured them. The wonder is that they continued to endure the system, which, with little modification, existed until the end of the last century. Though the Governor might not hold land, the rule that persons in official stations should not engage in other employments, was but nominal. The reciprocal detestation in which the burghers held those in official authority, and the local rulers held their discontented "free men" broke out anew from time to time. In the later years of the Company's domination the colonial authorities, aware of the hatred entertained against the Government, and fearful of revolution, urged most strenuously that no more burghers should be admitted in the colony at all. The burghers, on the other hand, were so alienated from the Government that, in 1781, they would not have struck a blow in defence of the Dutch East India Company; and the rapidity of the gallant French Commodore, Suffren, alone saved the colony from an English conquest; and in 1795, they had raised the standard of rebellion, when General Craig and Admiral Elphinstone appeared in Simon's Bay, with an English fleet, to take possession of the colony on behalf of the Prince of Orange, then an exile from his European dominions.

Of the Van der Stells, little more remains to be said. Simon van der Stell died at the Cape in 1712, and was buried with great pomp. The re-called Governor seems to have devoted his later years to literature and science in Holland. The eminent Burmann, in his *Rariores Plantæ Africanæ*, pays a tribute to the *Præstantissimus Botanophilus* who had, while at the head of affairs at the Cape of Good Hope, rendered much service to his darling science. The rhymer Van de Marre, in his somewhat lengthy poem called *Eer-kroon voor de Kaap de Goede Hoop*, sings the ex-Governor's praise, and deplores the mad folly of the discontented citizens, whose prosperity had led them to rebel against a paternal ruler. Thirty years before, the Jesuit astronomers, who had had the permission of the elder Van der Stell to erect the first observatory at the Cape, in the "pavilion" of the gardens, expatiated with admiration on the love of science and personal courtesy which they had found in the Protestant Governor of a Dutch colony.

It is but just, while the rapacity and tyranny charged against the Van der Stells by those whom they governed, are prominently recorded, to recal the traits in their character which show them to have been men of education and of liberal feeling.

THE LATE SURVEY OF IRELAND.*

COMMUNICATED BY T. MACLEAR, ESQ., F.R.S.

ONE of the perplexing circumstances attending the local government of Ireland (and a fruitful source of discontent) was the unequal distribution of taxes, arising from topographical uncertainty; ignorance, in fact, of the relative positions, forms, areas, and value of landed property.

The executive experienced the misery of dealing with unsafe data, excepting from certain portions of the country, while evasion or corruption could not be met by direct evidence; and the difficulties were increased by an overstocked population and a labyrinth of agencies.

It was finally resolved to strike at the root of the evil, by a complete and uniform survey of the country, commencing with fixing zeros by triangulation, which would provide, at the same time, the total area of the country and of the requisite subdivisions. Accordingly, the Ordnance Department was directed to perform the triangulation; and as the most delicate and difficult part of it consisted in the measurement of the base lines, Major Colby, R.E., to whom the conduct of the operation was entrusted, decided to measure but one; and that one with instruments of a construction which should be free, or sensibly so, from the uncertainty of length depending on the uncertainty of the expansion of the metals in variable temperatures. This he proposed to effect by a contrivance on the principle of *compensation*, which has been found to answer when applied to the pendulums and balances of time-pieces. He, moreover, decided that the ends of his "compensation" bars should not touch, when in line, to avoid displacement; that the adjacent ends should be separated by some inches, the interval to be determined by the distance between the *foci* of two compound microscopes, attached to a short "compensation" bar.

If two bars, say of brass and iron, be placed parallel to each other, but separated by a short distance, and their ends be joined by a cross-piece having free motion on a pin fixed in each bar, the cross-piece projecting on the side of the iron (because iron is less expansible than brass), a point can be found in the projecting portion which is not affected by the expansion of the bars, viz., a point can be found, round which, as a centre, the difference of the expansions of the iron and brass will describe a small arc. Similarly, a point

* We publish this article as introductory to, and illustrative of, a subsequent one, which we expect from Mr. Maclear, on the trigonometrical survey of this colony.—EDS.

can be found in the optical axis of a compound microscope attached to a compound bar of iron and brass, round which the difference of their expansions will turn.

Such was the plan adopted by Colby, after laborious experiments, with the able assistance of the late Captain Drummond, R.E. The long bars are each ten feet in length, and those to which the microscopes are fixed are six inches. The *set* consists of six bars and six microscopes, which measure a span of sixty-three feet.

The following cogent reasons for the survey of Ireland are extracted from the preamble to the "account of the measurement of the Londonderry base with the 'compensation' bars."

ORIGIN OF THE SURVEY OF IRELAND.

In the year 1824, the select committee appointed by the House of Commons to consider of the best mode of apportioning more equally the local burthens collected in Ireland, and to provide for a general survey and valuation of that part of the United Kingdom, agreed to a report, printed by order of the House, dated 21st of June, 1824, of which the following paragraphs are extracts:—

"In considering the subject referred to them, your committee have not felt themselves called upon to enter into a prolonged examination of witnesses to prove the necessity of a new survey and valuation of Ireland. Such a measure has been recommended by former committees, and its expediency admitted by the House. It has formed the subject of petitions to Parliament; and has been looked to by the people of Ireland as a remedy for the inequalities of the present mode of apportioning the taxation levied under the authority of grand juries and vestries. The expediency of proceeding in this great national work is apparent from a consideration of the sums annually levied under the presentment laws. By returns, laid on the table of the House during the present session, it appears that the amount of the grand jury taxes imposed in the last year has exceeded £750,000.

"The obscurity and want of uniformity of the general system, as well as the inequality incidental to the mode of apportioning these local taxes, have been admitted by the Parliament of Ireland at remote periods. In some parts of Ireland, the assessment is made by the civil division of ploughlands, varying in size and value, but rated at an equal sum. In other cases, a division by town lands has been established, each town land contributing according to its assumed area, which bears no defined proportion to its actual contents. Gneeves, cartrons, rates, and other sub-denominations of land are recognized in other parts of Ireland; but, however the names may vary, the evil seems universally the same; and the inequality complained of in the middle of the last century,

by Sir William Petty, continues, without correction, to the present time. This subject has frequently occupied the attention of the Legislature. A select committee, in the year 1815, after a minute investigation, reported 'that some mode should be taken to render grand jury assessments more equal, by correcting the defects arising from apportioning the county-rate according to old surveys, calculated on the measure of land formerly deemed profitable, and not comprehending the great improvements which have subsequently taken place.' Extracts from the evidence taken before the select committee of 1815 will be found in the appendix to the present report. In the following year a second report was presented to the House, stating 'that the various modes of levying the grand jury presentments, from the inequality of their pressure, arising out of the distant periods of time and unsettled state of the country where such arrangements are made, require immediate and complete alteration.' In 1819, a bill was introduced to provide for the survey and valuation of Ireland; but the measure was not persevered in. During the present session, a vote of £5000 was agreed to for the purpose of a trigonometrical survey, and the House resolved, 'That it is expedient for the purpose of apportioning more equally the local burthens of Ireland, to provide for a general survey and valuation of that part of the United Kingdom.' The utility of the proposed measure, as well as the necessity of its immediate commencement, appear, on a review of the records of Parliament, to be established beyond the possibility of doubt.

"Your committee have considered it important to inquire into the proceedings taken, both in the British Empire and in foreign countries, in the execution of territorial surveys and valuations; such an inquiry appearing likely to supply useful information on the subject referred to them by the House. One of the earliest, as well as the most minute of these surveys, is that transmitted to us under the name of the *Doomsday Book*. This ancient record, like the other earliest surveys, was not laid down as a map on paper, but as a catalogue or terrier of property. This inquest, properly called 'the most important financial operation' of that period, was intended to contain a survey of 'every hide of land in the kingdom.' Commissioners were sent down into the counties, with authority to empannel a jury in each hundred, from whose presentments and verdicts the necessary information might be obtained. They directed their inquiries to every important particular; the extent of each estate; its division into arable land, pasture, meadow, and wood; the names of the owners, tenants, and subtenants; their condition, whether free or servile; the nature and obligation of the tenures, and the estimated value. The extraordinary precision and minute details of this ancient work have scarcely been surpassed in modern times; and the mode in which it was effected appears to your committee not wholly inapplicable to the intended survey of Ireland.

"The survey of forfeited lands, made under the authority of Lord Strafford, in Ireland, is considered to have been executed in like manner as a terrier, though accompanied by outline maps. These original documents have unfortunately been destroyed.

"The most extensive and valuable survey of Ireland was undertaken by Sir William Petty, under a commission dated December 11, 1654; it was executed in consideration of a payment of twenty shillings by the day, and of one penny an acre for the grantees obtaining possession of the lands. This survey was laid down with the chain, and with wonderful accuracy, considering the period at which it was executed; it consists of county maps, containing the boundaries of baronies and parishes, and of baronial maps on a scale of forty perches to the inch; the latter distinguish the boundaries of parishes and town lands. Many of these maps have been destroyed by fire, but are replaced by copies taken from the originals deposited at the Royal Library at Paris. Of 1430 maps, about 260 are of the baronies, and the remaining 1170 of the parishes; about 67 of the baronial maps are burned, with more or less injury, 130 are fully preserved, and two are stated to be lost. Of the parochial maps, about 391 have suffered from fire, and about 780 have altogether escaped. These maps are deposited among the records in Birmingham Tower, and are evidence in courts of law as between the Crown and those deriving under it, as also between two persons both deriving title under the Crown.

"The last official survey of an extensive nature, made in Ireland, was that of the forfeited lands, in the reign of William III; it is preserved in the vice-treasurer's office, and comprises about 2,000,000 of acres.

"The practical subject referred to your committee may be considered, as it relates,—§ 1. To the survey; and § 2. To the valuation. Each of these demands consideration, with the view of defining the duty to be done, and the means by which that duty is to be performed.

"1. The surface of Ireland consists of about 12,000,000 Irish acres, or nearly 20,000,000 acres in English measurement, divided into four provinces, thirty-two counties at large, eight counties of cities, towns, or other independent local jurisdictions, two hundred and fifty-two baronies, about two thousand four hundred parishes, and a further civil subdivision, already alluded to in this report, generally known as town lands, but bearing different names in the several counties in Ireland. These subdenominations, which may be generally expressed by the words town land, are the ancient and recognized divisions of the country; they form the basis of the Down survey; they have been long used in the apportionment and collection of county and parochial rates. The county surveys executed in all cases, except two, are admitted to be useless as a basis for taxation, because the boundaries and area of the town lands have been omitted; and in the latest county survey contemplated, the grand jury acted upon a conviction that a survey by

town lands was indispensable. It is obvious that if a baronial or even a parochial subdivision were alone to be effected, sufficient data would not be furnished for the apportionment of the local taxes; and if, on the other hand, a survey by fields were to be undertaken, as in France and Bavaria, the expense of such a work would be augmented, and its completion postponed. A survey by town lands appears to your committee to be the rational medium between these two extremes; sufficiently close for practical purposes, without aiming at any extreme minuteness of detail. Your committee have closely examined this important branch of the subject, and after having placed upon their minutes the evidence of those who, from local knowledge and professional experience, were qualified to form an opinion, they feel it their duty to express their decided conviction, that a survey which did not include the boundaries and contents of town lands, would be insufficient for the purposes of valuation. Your committee are of opinion, that, could the counties of Ireland be furnished with a map, as perfect in its execution and as accurate in its details as the Ordnance survey of Great Britain, it would not answer for the purposes of the grand jury taxation, unless a minute subdivision, namely, that of the separate town lands, were superadded to the boundaries of counties and of parishes.

"Your committee conceive that the difficulty of tracing and of surveying these boundaries of town lands is not so considerable as might at first be apprehended.

"They have learned, with satisfaction, from Major Colby, that the additional time it would require would not be very considerable, provided the boundaries were set out. Mr. Griffith considers 'that there would not be any great difficulty in ascertaining the boundary of the town lands.' Mr. Bald is of this same opinion.

"Mr. Edgeworth states that it would not have added materially to the expense of the survey of Roscommon, executed by him and Mr. Griffith, if he had laid down these subdivisions; and Mr. Aher, whose survey of Kilkenny actually included the boundaries of town lands, had informed your committee, 'that these boundaries are less difficult to trace than those of parishes.' Had the result of their investigation been different, and had the possible delays and difficulties connected with the representation of these subdivisions appeared greater than they really are, your committee would not have felt themselves at liberty to abandon a principle essentially necessary for the success of the measure to which their attention has been directed.

"It has given your committee great satisfaction to think that the direction of the survey can be undertaken by the Board of Ordnance; they cannot conceive any other authority so well calculated to ensure the scientific accuracy and unity of principle which ought to distinguish a great national work.

"Your committee feel a perfect confidence that the map about to be furnished will comprehend the local subdivisions, without

which it would not answer the peculiar purposes of valuation. Were the boundaries of town lands to be omitted, the counties would be obliged to supply the deficiency by independent efforts; and the experience of the past, with the state of too many of the existing local surveys, sufficiently prove, that it would be in vain to expect to obtain, through the medium of the grand juries, such separate maps as could be compared and combined for any useful national purpose; the expense of such double operation would also be considerably increased, and an inferior work would be produced at a sacrifice of time, convenience, and economy.

"Your committee fully agree in the opinion of Major Colby, that steps should be taken without delay to facilitate the tracing of the town lands boundaries, a measure which that officer conceives would reduce, by one half, the time required for this particular branch of the survey. With this view, your committee have already instructed their chairman to bring in a bill, which they trust may pass into a law during the present session, requiring the several grand jurics to carry into effect the provisions of the 49th Geo. III., so far as respects the tables of town lands and their acreable contents. They also conceive that every other aid and facility should be afforded to the officers of the Ordnance, both by placing at their disposal an enlarged supply of improved instruments and by giving them a free access to all the existing public maps and records which bear upon the subject. The Down survey, that of the forfeited lands, the county and baronial maps, however imperfect in themselves, may be of some service. When the objects with which the intended survey is undertaken are understood, your committee are convinced, that not only will all the local authorities in Ireland afford their zealous co-operation, but, that many private individuals will, on public grounds, allow access to such maps and other documents, as can be of service in tracing the boundaries.

"In the survey of Roscommon, the Bishops and Clergy afforded every facility in settling parochial boundaries; your committee trust, that such aid will in the present instance be renewed, and assisted by the magistrates and police throughout Ireland. They are happy to learn, from the evidence, that so far from there being any reason to apprehend obstructions on the part of the peasantry, a reliance may be placed on their good will and co-operation. It is, however, important that the nature and object of the proposed work should be thereby explained and understood; when that explanation is given, there can be no doubt but that the proprietors and occupiers of land in Ireland, will feel that the completion of the survey and valuation is likely to conduce to the general good, and add to the value of property.

"Whilst your committee express their belief that the execution of the survey cannot be placed in better hands than in those of the Ordnance officers, they cannot but add, that it is expedient to give much greater dispatch to this work than what has occurred in the trigonometrical survey of England. That great work, highly

creditable as it is to the individuals by whom it is conducted, has already been 33 years in progress, and yet it still wants one third part of its completion. It ought to be added, however, that the operations of the ordnance suffered interruption during the war. The Irish survey is of the most urgent necessity, and no effort should be omitted to accelerate its completion. It may be observed that the ordnance survey of Ireland must, in the course of a few years, have been undertaken by that department, and that by hastening the period of its execution for the important purposes of the Irish valuation, there will be ultimately no greater expense borne by the public. A limitation of the number of persons employed appears a questionable policy on the principles of economy, as the directing staff must be maintained no less for the control of a limited than for the guidance of a more extended operation. It is satisfactory to your committee to report, that, the former surveys carried on under Parliamentary authority, have established in Ireland a school of scientific topography. Whether it may be expedient that any of the respectable civil engineers of Ireland should be employed, under the authority of the ordnance, it is altogether for that board in its discretion to determine; but your committee perfectly agree with Major Colby, that a central and effectual control is indispensable to the successful termination of this undertaking. The best scale for effecting the intended survey appears to your committee that of six inches to the English mile; this will afford sufficient means to the engineers to enter into all the detailed information requisite; it is the scale on which the ordnance survey of Kent was originally commenced. With respect to the engraving it may be advisable to follow the same scale adopted in the British maps. A protraction up on a double scale of 12 inches to the mile for cities and great towns where the valuation must necessarily be more minute has been recommended, and appears desirable. The altitudes of the principal mountains should also be given, as well as the boundary of the uninclosed lands, whether bog, mountain, or rock. The latter will correspond to the distinction, traced on the ordnance map, between cultivated lands, commons, and woods.

"Your committee have learned that the hydrographical charts, now extant, of the coast and harbours of Ireland are inaccurate and unsatisfactory. Combined operations between the Admiralty and the Ordnance, for the purpose of furnishing information so important to the public interests, have already been suggested; and your committee trust that the views of the admiralty, contained in the Secretary's letter of the 22nd day of April, may be carried into effect. The soundings of the harbour of Plymouth have been laid in with advantage, both with regard to economy and to dispatch, by making use of the points ascertained trigonometrically by the officers of the Ordnance.

"Your committee are of opinion, that the new survey should supersede all local topographical proceedings, whether under the

authority of grand juries or otherwise. It is evident that the ordnance survey will supply all that can be required for county purposes. And however creditable to the artists who have executed them are the maps of Roscommon, Longford, Mayo, Kilkenny, and Dublin, yet most of the other county maps being laid down upon a variety of scales with very imperfect instruments, and without pretension to scientific accuracy, it would be unwise to continue operations so liable to objection, as well as so expensive in their execution.

"With a view to the diminution of expense, your committee are inclined to think that the Bavarian system is not an incligible one, by which individual proprietors of estates are allowed to subscribe for copies of those parts of the map in which they feel interested. A survey, on the scale of six inches to the mile, might be applied to various purposes of private utility, more especially combined with a valuation, and with the statistical information included in the population returns. The latter documents contain the number of families, houses, the size and description of farms; and, when accompanied by an accurate map and valuation, your committee are inclined to hope they may furnish individual proprietors, at a moderate price, whether inhabitants or absentees, with valuable information respecting the condition of their estates, and the best means of improving them.

"2. With respect to the VALUATION, your committee are not as yet in possession of sufficient evidence to enable them to form a detailed plan or to do more than to suggest some leading general principles; they, however, regret this the less, because the survey must necessarily take precedence, the basis of the valuation being obviously the proposed maps of counties, baronies, and parishes, divided into there respective town lands. Tracings of these skeleton maps may be furnished, as the filling up of the triangulation proceeds.

"In concluding this report, your committee must again repeat their recommendation, that the work may be proceeded upon with as much dispatch as is consistent with accuracy of execution. It is not unworthy of remark, that all former surveys of Ireland originated in forfeitures, and violent transfers of property; the present has for its object the relief which can be afforded to the proprietors and occupiers of land from unequal taxation. The general tranquillity of Europe enables the state to devote the abilities and exertions of a most valuable corps of officers to an undertaking, which, though not unimportant in a military point of view, recommends itself more directly as a civil measure. Your committee trust that the survey will be carried on with energy, as well as with skill, and that it will, when completed, be creditable to the nation, and to the scientific acquirement of the present age. In that portion of the empire to which it more particularly applies, it cannot but be received as a proof of the disposition of the Legislature to adopt all measures calculated to advance the interests of Ireland."

THE STATUE OF BACCHUS.

AFTER UHLAND.

Calisthenes, a gay Athenian youth,
After a night in festive pleasures spent,
A withered ivy wreath in his loose hair,
Came in the early twilight reeling home,
Himself like twilight, gloomy, faint, and pale.

As through his gallery, with statues graced,
A slave unto the chamber led the youth,
In the red torch-glare suddenly there stood
The marble shape of Dionusos forth—
A wondrous triumph of the sculptor's art.
The god-like semblance showed a lovely boy;
Through whose long richly waving tresses shone
The shoulders chiselled into perfect form:
And underneath a garland, freshly wreathed
Of vine leaves jewelled with luxuriant grapes,
Appeared the fulness of the blooming face.

Calisthenes, awe-stricken, started back
Before the brilliance of the life-like god:
He felt as if with yon dread thyrsus-wand
The presence in rebuke had touched his brow,—
As sternly spake the animated lips:—

"Why dost thou haunt here—tottering shape of night,
Gloom-visaged shade bereft of strength and sense?
Thou hast profaned my sacred ivy crown,
And shameless dar'st to call thyself my priest.
Away from me: I know not thee or thine:
Creative nature's plenitude am I
Most meetly imaged in the precious juice
That flows in godlike bounty from the vine.
If your licentious orgies need a god,
On sunny vine-grown hill-sides seek him not:
Seek whom ye want in Hades' gloom below."

The presence ceased; the torch-light was obscured;
The youth into his chamber groped ashamed,
He took the ivy garland from his head,
And silently within his secret heart
Unto his conscience sware a solemn vow.

A CAPE BOTANICAL GARDEN, AS IT SHOULD BE.

BY HORTULANUS.

THE necessity for the establishment of an efficient and extensive botanic garden at the Cape becomes more urgent every day. It therefore requires but little apology for bringing the subject into public notice. But it may be necessary to advert to the utility of such an establishment, by noticing a few of the benefits to be obtained, and calling attention to the losses which the whole colony has already sustained from the want of a permanent place for the reception, prescrvation, increase, and distribution of numerous valuable exotics, which have from time to time been brought into the colony by individuals whose liberality and kindness have met with so much disregard and apathy from the public at large.

The publications in the Magazine on planting, creditable as they are to the authors, and valuable to the landholder who might wish to improve his estate, are to the latter of less value than growing specimens (of the species enumerated) presented to his view would be, as, from these, he would be enabled to select the species best adapted to his purpose; and be further encouraged to plant by observing the various forms and sizes of the established specimen trees. And with regard to indigenous species he would become acquainted with many in a growing state that he knows only as timber, procurable in the market, and of which he supposes that there is an inexhaustible supply in the Government forests; an idea as erroneous as it is mischievous. In those forests destruction alone is going on, and no new plantations are preparing a future supply.

As a depôt for the reception of plants of all descriptions, an establishment of sufficient extent in acres is absolutely necessary for the formation of the various departments required for the successful rearing and culture of the various seeds and plants received, and preserving them, until of sufficient size and strength, for the final planting out, or for distribution to individuals who will appreciate their value by a careful cultivation.

A botanical garden, in general, should receive and preserve specimens of every vegetable capable of culture, and represent some one or two systems of botany, in quarters distinctly arranged, for the beneficial assistance of the botanical student. This, however, is seldom the case, owing in some measure to the difficulty of obtaining many species, the difference in the habit of growth and size of several, and, in particular cases, the higher degrees of temperature the

plants are found in naturally. This to the intelligent and experienced man is but little impediment, his knowledge of botany enabling him to select a sufficient number of known species, and to exhibit, in a very limited space of ground, the artificial system of Linnæus, or the more generally approved natural orders of others.

With regard to the general collection, it never can be complete in arrangement so long as new acquisitions are obtained. This very circumstance obviates the necessity of confining the ground-plan to formal squares, left for various species in blank; they become eyesores, or when the whole may be filled at the first, new acquisitions will cause a complete derangement and much additional labour. On the other hand, the ground may be so laid out with a view to pictorial effect, that any necessary additional clumps agreeing in form with the original design may be added with effect and advantage. A small portion of the ground may be set apart for the reception of officinal plants; and if, to this is added a plot for the indigenous species used by the inhabitants for medical purposes, a medicinal garden would be formed enabling the medical practitioner to study the nature and properties of each species, fixing names to many which at present are unsettled and various, and, by so doing, prevent the occurrence of fatal accidents, which an uncertain nomenclature, from its confusion, is too apt to cause. To the chemist this arrangement would be of considerable value, as he might from thence procure specimens to test for their properties, and recommend such species as he found worthy to the farther experiments of the faculty in general.

To the farmer, a collection of such species as are usually termed field crops, would prove both interesting and instructive. At one view he might observe many varieties among wheat which in the field he could hardly distinguish till the differences were pointed out to him by comparison. In the grasses he knows little, and particularly of the native species, many of which might be improved by cultivation, and enable the farmer to maintain his live stock better than they are at present, depending for existence, as they do, chiefly on the scanty herbage which is produced spontaneously.

It may here be asked, whether the sheep-farmer either has or has not observed a salutary change in the natural herbage on his pasture lands since he has increased his flocks?

A roomy quarter as a nursery for the forwarding the various forest trees and ornamental shrubs, and, which, for a time, may be in active demand, would be useful, and indeed necessary, but by no means established and continued as a

market garden, as it would interfere with other arrangements, and occupy the time that ought to be directed to the more essential objects of the institution.

To the amateur, the mere professional gardener, and to the cottager, examples of judicious ornamental gardening would be highly beneficial, by inducing them to imitate and adopt a more rational method, in laying out and planting than is their present practice. It is painful, to an experienced eye, to enter what is usually called a "flower garden" in this colony, and observe the absurd manner in which trees of gigantic growth, small shrubs, and still smaller herbaceous plants, are jumbled together in grotesque confusion; triumphantly pointed out by the owner, who rejoices in the number and variety which he prides himself in possessing. The experienced man, however, foresees the failure and destruction of the more delicate, killed, by the more robust, and those in their turn becoming nuisances from the largeness of their growth. It may be reasonably expected that in the course of time, a great number of species and varieties will be accumulated in the nursery quarter, more than sufficient to supply the public demands, or that may be required to fill up occasional vacancies in the general arrangement; those may be planted out as a distinct shrubbery, or as sheltering borders, &c., to the ornamental flower gardens.

There are frequent arrivals from Europe of the seeds of new varieties of culinary vegetables, or of old ones bearing new names. To prove their identity, and ascertain which of them would be the most profitable and the best suited to the South African climate, an experimental ground would prove of essential benefit, especially as there is no horticultural garden established here. To such an allotment no reasonable objection could be made.

A garden of indigenous South African plants would form an instructive and useful feature in the establishment; many species might be preserved to futurity, that are at present fast disappearing from their native wilds. Their conservation would enable the director to furnish foreign applicants more readily, and at less expense than long, tedious, uncertain, and expensive journeys could produce; many species being extremely confined in their native localities. As a familiar and striking example of this peculiar habit, observe the silver-tree, or *witte-boom* of Table Mountain.

To carry out the foregoing diversified schemes, and form a permanent establishment worthy of the object contemplated, and of South Africa generally, it will be necessary to secure a sufficient space of land for the purpose, say not less than from

three hundred to five hundred acres; and, from the number of species that may be collected, and the great size to which many attain at maturity, a sufficient space must be allotted to exhibit them in vigour and beauty. If this were judiciously planned it would form an agreeable park for the health, exercise, and enjoyment of generations to come. In Europe the climate, of necessity, compels the erection of costly structures for the mere preservation in life of thousands of species, confined in pots, hacked with the knife to keep them within bounds of the scanty storeroom provided; and preventing by such treatment the production of flowers or fruits; and even causing death to very many on account of the confinement of their roots. From this treatment, the *Proteaceæ* of South Africa and Australia are amongst the many that suffer, and they are, therefore, rarely met with in perfection in the gardens of Europe. At the Cape, a few small pits, glazed with the patent rough glass, will be necessary for the rearing of many seedlings. And, perhaps, for the preservation of a few of the more tender tropical plants, while young, a larger building or conservatory for rearing and gradually hardening the plants, to resist the effects of cold rains and night frosts of a Cape winter, would be useful.

A building for the reception of the *herbarium*, and as a botanical museum, for the display of the raw vegetable material, and, in some cases, manufactured specimens, would be interesting and instructive, exhibiting the true material of several fabrics, the commercial names of which tend to mislead the community as to their real nature, as such terms as "rice paper" and "grass cloth" naturally do,—the former being the *medulla*, or pith of an *azalia*, and the latter woven from the fibres of a nettle.

A dwelling house and office, commodiously situated, for the superintendent is indispensable, as his presence is requisite and liable to be called for at all hours; tool-house and sheds will of course be required, and as the establishment may be advanced, various ornamental and useful seats will also be necessary.

In forming a botanic garden, especially on an extensive plan, time and persevering labour are essentially requisite. At the commencement, a general ground-plan should be laid down, allotting sufficient space for each department, and careful selections should be made of the situations adapted for their particular purposes. The whole area should be laid out in a connecting series, although it may be necessary, in the first instance, to prepare only parts of the various divisions for the immediate reception of plants as they are procured,

taking especial care that the ground is properly prepared. By attention to this point, future alterations and removals may be avoided, which if not destructive entirely, may prove injurious to the plants, and must always be disfiguring to the neatness and order of the garden.

In England, where there are so many first-rate public nurseries, and other gardens established, a very superior collection of plants, natives of most parts of the world, are procurable on the shortest notice, and a most splendid display made in a newly formed garden at once. The Cape not being possessed of these facilities, it would be advisable that the parts selected for the scientific arrangements should be the first got ready: and here the species, as they are procured, can be fixed in their right places. This procedure would give the less informed visitor an idea of what may be expected at a future period, and at the same time present to view a lively proof of the value of botany, by showing how easily the blanks can be afterwards filled up by a due knowledge of the science.

To collect in one garden only the well-known and authentically described species of plants, amounting to above 80,000, is beyond the present power of man. But such is the genial climate of the Cape, and its central position, that in a few years a botanical garden, formed upon a liberal basis and worthy of its name, might vie with any establishment of the same kind in any part of the world. As to the procuring of exotic species for such an institution, there is no obstacle in the way but what may be overcome. Even casual visitors would feel pride in contributing; and there is no botanical garden, public or private, in any quarter of the globe but would freely exchange, on liberal terms, whatever species they have for South African productions. Even dried specimens of many species which do not arrive at perfection in Europe, and of other nondescript species, would be acceptable to professors of botany.

All the above, together with the necessary correspondence, would certainly press heavily and unceasingly upon the superintendent, not permitting a vacant moment; but it would also, to an active and generous mind, be a source of gratification, in the feeling that his endeavours to comply with those calls would be duly appreciated and rewarded by the returns he would receive in seeds, plants, specimens, and information.

The control over the garden, with regard to an economical and necessary expenditure, should be vested in the Government, or some officer appointed by the Government, and he

would require monthly or quarterly reports of all matters relative to the efficient management and progress of the garden which might be interesting to the public.*

The superintendent should be an experienced practical gardener, skilful in every branch of his profession, possessing a general knowledge of plants, and able to instruct and direct the labourers in every operation to be performed.

In the first instance, rough labourers will only be procurable, but afterwards a better description would arise, from the instruction they receive as apprentices in the garden. Pupils for the mere attainment of knowledge in systematic botany might be expected to present themselves, and should be encouraged. A moderate fee may be paid by them, to be appropriated to special purposes, or added to the general fund for the support of the garden. There is much to be said on this point, which may be left for the present.

To the mere superintendence, and, it is to be hoped, instruction both of labourers and apprentices,† as well as the information called for by the public (and of which the present commissioners of the Cape Town Garden are remarkably chary,—inexcusably so, indeed), must be added the various necessary books to be kept, such as journals, registers, lists, &c., and the numerous duties arising from correspondence with all parts of the world, and which can only be accomplished by an experienced and well educated person.

The superintendent, to carry out successfully his multifarious duties, should undoubtedly be a native of the United Kingdom, and whether English, Scotch, or Irish, would be of little consequence, if found to be "up to the mark," and capable of introducing what is wanting here, viz., a system of horticulture suitable to the climate.

Such an individual would, for his own sake, as well as for the credit of the establishment, so conduct himself as to

* The want of such periodical information is one of the greatest blots in the present management of the Botanical Garden, such as it is. A catalogue of plants acquired, lost, or sold, should be published every six months, and a handbook or guide to the Garden should be compiled, and sold to all desiring it. No one knows what is in the Garden now, or where to find anything.—Eds.

† When the present Garden was first established, one of the prospective advantages enumerated was the instruction of apprentices, and the training of an improved race of colonial gardeners, which expectation has certainly not been realized. It can only be so, by giving the present superintendent the aid of one or two assistants from some public garden or nursery in England, who might relieve him from much mechanical drudgery, and enable him to take charge of apprentices.—Eds.

render to his employers every possible satisfaction in the discharge of his duties; freely imparting to inquirers any reasonable information they may seek, and listening patiently to any suggestions which may be offered. At the same time, it is very necessary to observe that any dictation (whether official or otherwise) offered to such a man, contrary to his approved experience, will engender in his mind a silent contempt, and perhaps a disregard of consequences, which may be fatal to his efficiency.

The salary of the superintendent should be as liberal as possible. Three hundred pounds per annum might be considered the minimum. Five hundred used to be the average formerly in the colonies for such establishments; but ill-advised economy reduced the rate, much to the detriment of several gardens, as it led the superintendents to turn their minds to other sources of revenue, and to neglect a great part of their public duties.

The garden should be under the immediate protection of the Government, who might appoint an honorary officer to watch the proceedings, and whose duty it would be to point out any malpractices or deficiency of management he might detect, and, if necessary, to cause an inquiry and inspection by practical gardeners. It is to be hoped that some independent gentleman, of the necessary qualifications, would be found to accept and fulfil this duty.

In England, Sir Joseph Banks was appointed to watch over the interests of the Kew Gardens; and well did he execute his functions, by occasional visits, and the extensive correspondence he maintained with the scientific men of the age, in all parts of the globe. He procured and sent to Kew all that he received from abroad; and even while the foreign ports were closed by Bonaparte against foreign intercourse, the packages of Sir Joseph were permitted to pass freely. His wealth also allowed him to maintain a botanical painter, at a salary of £300 per annum, for the express purpose of drawing any new or rare species which the garden produced. This artist (Bauer) enjoyed, by the provisions of Sir J. Banks's will, the same liberal recompense. The fruits of his labours are now in the British Museum, bequeathed to the public by Sir Joseph, together with his herbarium and library.

Shortly after the decease of Sir Joseph, that notorious Board, the "Woods and Forests," thought proper to introduce a creature of their own as director, and appointed a colonel to be chief gardener. He, being used to military discipline, could do little more than call the roll, forcing the

men to assemble and answer to their names at their coming in and going out. A quiet intimation of this being given to George IV, the interloper was quickly marched to the right-about, and fortunately before any great harm could be done.

I mention this merely as a hint to prevent any such practice here, being well aware there would be candidates enough (whether eligible or not) soliciting the appointment, the object with them being Government service for their own personal glorification, and themselves being, in their own opinion, quite as competent to take charge of a botanical garden, or any other public department, as of a consignment of punjums, or a cargo of rice.

[We give this paper because it is the production of one who understands his subject, and not because we anticipate that the suggestions it contains will ever be carried out at this end of the colony. We would request the writer of it to favour us with his opinion how the "Subscription Pleasure Garden" ("Botanical Garden" it is not) of Cape Town, *is to be maintained at all*, when its subscriptions, amounting to £400 or £500 per annum, shall cease and determine, as they must do, if the Garden is thrown open to the public !—Eds.]

LITERARY REVIEW.

Blue-book literature is seldom distinguished as being either very light or very readable. Abundant in hard facts and figures, sufficient to satisfy Mr. Gradgrind himself, there are to be found in blue-books but the rarest and most exceptional glimpses of what, by any stretch of courtesy, could be called interesting, amusing, or humorous. Mr. Wyley's blue-book on Namaqualand is decidedly an exception to this general rule. Its strictly topographical parts are sufficiently matter of fact to satisfy the curiosity of the most anxious Namaqua mining shareholder. Its geological descriptions and occasional disquisitions and speculations read like chapters from the best of Lyell's works. The appendix of general descriptions of Namaqualand—its physical condition—its native races—its zoology—its botany—its social condition, &c , abounds in graphic sketches and felicitous touches of humour, which remind one of the genial writings of the lamented Edward Forbes. Mr. Wyley's official report on Namaqualand is much more than a mere report. It is, even as it stands now, a valuable contribution to an important department of geological science, and one which will go far to establish the author's reputation, not merely as a surveyor, but as a most competent describer of geological facts and expounder of geological arguments. We only trust that this is very far from being the last contribution to be made by him to the geology of South Africa; and we hope that the Government and

the Legislature will be liberal enough in their views to secure, for several years yet to come, the services of so accomplished an observer as Mr. Wyley has now proved himself. Notwithstanding all that Mr. Bain has done, the Geology of South Africa is yet a *terra incognita;* and nothing could we conceive of greater interest to the scientific world than a volume from the pen of the Geological Surveyor, specially devoted to so inviting a subject.

We had purposed this month presenting a general review of the blue-book now before us, but want of space compels us to abandon that intention. We shall, in this number, limit ourselves solely to a brief reference to Mr. Wyley's description of the geological structure of the country he has been exploring; his theory of the origin of the mineral impregnations that enrich it; and the influence he deduces from that theory regarding the future prospects of the mining districts. At the outset he deprecates excessive hypercriticism of the precise correctness of his minor details, as he informs us somewhat dolefully of the "circumstances of the country, which are more than usually unfavourable to accurate observation:"—

"Obliged to work under a burning sun, without a bush to intercept the radiation from the heated rocks,—interrupted frequently by the necessity of following and bringing back your runaway horse, who will not remain for a whole day, however fastened, in a place where there is not a blade of grass or a drop of water, it is impossible to observe with all the minuteness and accuracy you could wish."

The general basis of the country consists of one common formation of gneiss and schists, capped and overlaid by newer rocks. Those newer rocks in the more northern districts consist chiefly of thick deposits of shales, limestones, and very ancient sandstones, forming, towards the Orange River, mountains almost as imposing as Table Mountain at the Cape. The sandstones are probably of contemporary formation with Table Mountain, and, like it, are wholly unfossiliferous. Underlying the schists and gneiss, and at varying depths, is a general granite mass, which appears to come much nearer the surface in the southern portion of Namaqualand, than in the north. The most remarkable feature in the mineralogical structure of the country is connected with the more southern districts. The gneiss which forms the characteristic surface rock, wherever the notorious copper indications abound, is soft and altered by contact with a subjacent igneous rock. This underlying rock is felspathic in composition, very hard and crystalline, and evidently igneous and intrusive in its origin. It is the same rock which, in more distant districts, by the addition of quartz and mica, passes into a true granite. This felspar rock is frequently thrust up in dyke-like masses, through the superincumbent gneiss; and in branching veins, thus ramifying through the gneiss above, and corresponding veins for a short depth in the felspar rock below, the copper ores are most abundant. At the junction of the two rocks, and in the felspar rock, the ores are generally sulphurets, which seems to have been their original condition; as, nearer the surface, they appear to have been decomposed, in some cases into

oxides, and in other frequent instances to have formed silicates by combination with the silica of decomposing felspar. In the crystalline felspar the cupreous veins often extend downwards for a few feet, but they gradually become so diffused that they are ultimately lost in the general mass, and the copper seems to become a constituent portion of the rock itself—which is of course equivalent to a loss of the ore altogether. From this it is evident that the ore is of contemporary origin with the felspar rock itself; and, says Mr. Wyley,—

"We can account for the facts in no other way than by supposing that when this felspar rock came up in a state of fusion from beneath, it brought the copper along with it, in the form, most probably, of copper pyrites, distributed throughout its mass. This, on cooling, would naturally segregate itself into veins, more or less definite, and, where the circumstances were favourable, into large lode-like masses, while a portion would still remain in a state of minute division throughout the rock. A portion would, at the same time, find its way into the more broken portions of the gneiss above,—and this, by gradual decomposition, would produce oxides, and silicates, and such surface ores."

Mr. Wyley anticipates a difficulty that may be raised against this view, "how the ore, if originally mixed up with the felspar rock, while the latter was still in a state of fusion, should, even regardless of its superior gravity, collect in the upper portion of that rock?" He admits the difficulty, but disposes of it, in our opinion not unsatisfactorily, by ascribing the deposition of the copper to the operation of powerful thermo-electric currents, which are known to be always generated when a cold body comes into contact with an intensely heated and liquid mass. These currents would have come most intensely into action when the fused igneous rock impinged on the cold superincumbent gneiss, and hence the determination of the copper principally towards the junction of the two rocks. From all this, Mr. Wyley infers, among many things that we have now no room to make reference to, that when rich veins in the altered gneiss are met with, they may continue their richness for twenty, thirty, or forty feet downwards, till the subjacent felspar rock is arrived at; that in that rock for a certain depth they may continue still of varying productiveness; but that the probability of their entire disappearance in that rock, their absorption into its general mass, is so great, as to amount to almost positive certainty. Hence, even the best mines of Namaqualand he is far from considering to be inexhaustible. Some will endure longer than others, but the felspar rock will be reached sooner or later in them all.

"Of those mines which have been abandoned, there is not one that I can point to as holding out a certainty, or even a probable chance, of being worked with success. Of the few mines now at work, I believe that Springbok Fontein is likely to hold its ground the longest."

The mining phenomena of the north, Mr Wyley speaks of as being much more simple, and more easily explained.

"There small portions of copper have found their way probably from igneous rocks below, far up through the more open beds of the nearly ver-

tical schists; or have been deposited in cracks, along with the quartz veins —modes of occurrence which are common enough all the world over, and which therefore do not call for any lengthened explanation."

In this brief notice of the Namaqualand blue-book, we have necessarily done much injustice to the clearness and fulness with which Mr. Wyley expatiates on his subject, and tells "the story of the Namaqualand copper." We cordially recommend those who have an opportunity of perusing the report itself to study it for themselves. To the range of subjects of more general interest, opened up by Mr. Wyley in his Appendix, we shall return at another opportunity.

We can now merely announce the publication of the Hon. Mr. Reitz's *Lectures on Cape Agriculture*, delivered in Cape Town some three months ago. They present an exceedingly interesting and very instructive history of Cape agriculture, in its various departments, from the days of Van Riebeek downwards; and they present a graphic account of what it has become in our own days—vastly improved from the antiquated systems of the past, but still with ample room for further improvement and in the same direction. The author expatiates on sheep-farming, horse-breeding, corn-growing, vine-culture, silk production, olives, &c.; and in the discussion of his various subjects throughout, he proves himself to be what the Attorney-General once described him, an "excellent specimen of the cultivated country gentleman."

From an American newspaper, we find that the Rev. Dr. Adamson, formerly of Cape Town, has, a few months ago, read a paper to the Geographical Society of New York on South Africa, its physical structure, and the tribal classifications and relations of its aboriginal inhabitants.

Dr. Adamson's philosophic mind and comprehensive views are such that any production of his is alike valuable and interesting. We regret, however, that in the newspaper that has come into our hands there is merely a brief abstract of the substance of the lecture delivered by him to the society at New York. We select one or two brief extracts as specimens. Of the races of South Africa he says:—

"Two great races of men met and strove in that region before the European intruded upon them. There is the Eastern Negro or Zambesan, a cultivator, with a home to defend, and therefore having union and government. It is this race which speaks the alliteral language, spread over the south of the African continent, from the Equator to the Cape. Thrust onwards before them, as they came from the northeast, the Hottentot or Gariepine race was met by Europeans landing on the south-western promontory. These Gariepine people speak a tongue of a different order. They are a nomade people, with much of the personal independence due to that mode of life, which does not depend on cultivation of the soil, but on flocks and herds. Intermingled with the other race, they form the Kafir, possessing somewhat of the characteristics of both. A small and rapidly vanishing division of the Gariepine or Hottentot race is the Soa or Bushman. He lived by hunting or by plunder, and was universally regarded and pursued as an enemy. Exposure to danger and privation have reduced him to a dwarf.

"If we trace out the affiliations of the language spoken by the Hottentot and Bushman, we shall find it to be related to that of the Galla, the Abyssinian, and the old monument-building Egyptian. One great race, properly

the Ethiopic, seems to have occupied the interior spine of Africa. Their tongues have stronger Semitic relationships than any found in those of the great Zambesan race, but the languages of both have specialities peculiar to them as a whole, and bearing a strong analogy to the tongues of the Japetian order. It is not improbable that the Mpangwes of the Gaboon, the Foulahs or Felatahs of the Nigritian plains, and other tribes, who possess less normally a negro character, are related to this more central race, and thus, that in the ethnology of Africa, eliminating the influence of its Mediterranean division, there are offered the repellant masses, or the struggling and intermingling streams of two great races."

Of a peculiar feature in the botanical aspects of the Cape, he says:

"Soon after sunrise, the white starry ixiadæ, and a few yellows, such as the golden-flowered divisions of the geissorhizas, were pre-eminently conspicuous. As the sun rose, the reds both of the monocotyledons and of the oxalides became profusely intermingled with them. Under the bright meridian sun the blues broke out in rich abundance, and then all, intermingled with the bright green of the leaves, gave combinations of colour richer and more harmonious than art ever produced. This process, indicating the effect of the sun's rays on petals of different colours, is reversed in the after part of the day."

Bulwer has, in *Blackwood*, returned to his own legitimate pursuits; and leaving Mr. Disraeli and the Derbyites to battle for place and power as desperately and as vainly as they may, Sir Edward delights and instructs the people of England with another such delicious picture as they have already from him in *My Novel*. Of all the varied phases of Bulwer's literary life, the last, as exhibited in the *Caxtons* and *My Novel*, is incomparably the best. The maturity of his practical thought, his graceful humour, his artistic grouping of the common occurrences of common everyday English life; and, above all, the intense reality of his pictures gave a charm to these last works, which even the very best of his splendid historical romances are altogether devoid of. The new work begun in *Blackwood* is by Pisistratus Caxton himself, and the specimen hitherto published is a thoroughly characteristic one. The title of the story is a curious one—*What will he do with it?* and the course which, in its future windings, it may follow, it is of course impossible to foresee. It opens with a picture of a summer fair in one of the prettiest villages of Surrey:—

"The main street lined with booths, abounding in toys, gleaming crockery, gay ribbons, and gilded gingerbread. Farther on, where the street widened into the ample village green, rose the more pretending fabrics, which lodged the attractive forms of the Mermaid, the Norfolk Giant, the Pig-faced Lady, and the Calf with Two Heads; while high over even these edifices, and occupying the most conspicuous vantage ground, a lofty stage promised to rural playgoers the 'grand melo-dramatic performance of the *Remorseless Baron and the Bandit's Child*.' Music, lively if artless, resounded on every side; drums, fifes, penny whistles, cat-calls, and a hand organ, played by a dark foreigner, from the height of whose shoulders a cynical but observant monkey eyed the hubbub and cracked his nuts."

The characters yet introduced on Bulwer's canvas are not very numerous. The most conspicuous is Gentleman Waife, who does the "Bandit" in Mr. Rugge's melodrama, and his delightful granddaughter, little Sophie, the Juliet Araminta of the "Bandit's Child." Waife is in difficulties and oppressed with a load of unhappiness, which only three pounds sterling can remove from him.

He is put in the way of honestly possessing himself of the desiderated amount, and the reader closes the first book with the exclamation of the author—"what will he do with it?" Besides Mr Waife and Juliet Araminta, we are introduced to two other characters of a different stamp—Vance and Lionel. Vance is an artist, a pupil of the Royal Academy, and with his more juvenile friend, Lionel, is ruralising among the Surrey villages, and enjoying as much of art and fun as he can from attendance on the village fairs and sports. Here is a picture of Mr. Vance:—

"He was good looking, on the whole, and would have deserved the more flattering epithet of handsome but for his nose, which was what the French call a nose in the air. Not a nose supercilious, as such noses mostly are, but a nose decidedly in earnest to make the best of itself, and of things in general—a nose that would push its way up in life, but so pleasantly that the most irritable fingers would never itch to lay hold of it. With such a nose a man might play the violoncello, marry for love, or even write poetry, and yet not go to the dogs. Never would he stick in the mud so long as he followed that nose in the air."

The following is an extract from a conversation that passed between Lionel and Vance. It is thoroughly characteristic of "the practical dryness and unctuous humour" which have distinguished all the productions of Mr. Pisistratus Caxton:—

"Lionel (speaking with knit brow and clenched teeth).—One thing I am bent upon, I will gain an independence somehow, and support my mother.

"Vance.—Your mother is supported—she has the pension—

"Lionel.—Of a captain's widow, and (he added with a flushed cheek) a first floor that she lets to lodgers!

"Vance.—No shame in that. Peers let houses; and on the Continent princes let not only first floors, but fifth and sixth floors, to say nothing of attics and cellars. In beginning the world, Lionel, if you don't wish to get chafed at every turn, fold up your pride carefully, put it under lock and key, and only let it out to air upon grand occasions. Pride is a garment all stiff brocade outside, all grating sackcloth on the side next to the skin. Even kings don't wear their dalmaticum, except at a coronation."

Within the last few months, a ferocious crusade has been attempted for the suppression of the vicious habit of tobacco smoking. The *Lancet*, on the one hand, and the Anti-tobacco Smoking Society on the other, have, with equal vehemence, denounced a custom to which are traced "the disordered stomach, the weakened nerve, the dull eye, the trembling hand, the lack of energy, the palpitating heart, the fevered brain, the treacherous memory, the pale cheek, the woe-begone countenance, the craving for stimulating drinks, and the morbid sensibility of the system." After so wild a tornado of abuse, it is quite refreshing to the terrified tobacco consumer to meet with Mr. Caxton's approval of the fragrant weed. Gentleman Waife, the reader will remember, was in frequent distress. Why or wherefore does not yet clearly appear. But—

"Mr. Waife drew a long whiff, and took a more serene view of affairs. He who doth not smoke hath either known no great griefs or refuseth himself the softest consolation next to that which comes from heaven. 'What softer

than woman !' whispers the young reader. Young reader, woman teases as well as consoles. Woman makes half the sorrows which she boasts the privilege to soothe. Woman consoles us, it is true, while we are young and handsome ; when we are old and ugly, woman snubs and scolds us. On the whole, then, woman in this scale, the weed in that. Jupiter hang out thy balance and weigh them both ; and if thou give the preference to woman all I can say is, the next time Juno ruffles thee—O, Jupiter, try the weed !'

In the obituary of the month, appears the distinguished name of Douglas Jerrold, the dramatist, the periodicist, the brilliant founder of *Punch*, the most epigrammatic wit in England, and above all, the celebrated reporter of the Caudle Lectures. His funeral was attended by all the literatteurs, dramatists, and artists of any mark in London. Since his death, Mr. Dickens, Mr. Thackeray, Mark Lemon, Albert Smith, &c., have got up a series of dramatic performances, and readings, to raise a memorial fund in commemoration of their illustrious friend.

The new works received at the Library this month are more numerous, varied, and valuable than the usual monthly batches. We can do no more now than merely give the following list of them :—

Encyclopedia Britannica, 13th vol; Wilson's Works, 8th vol; Robertson's Sermons, 3rd series; Hursthouse's New Zealand; Saint Hilaire's Egypt; Barth's Travels in Africa; Brigg's India and Europe; Hill on Crime; Memoirs of Duke of St. Simon; Herschel's Essays; Campbell's Lives of the Chief Justices; Helen and Olga; Nothing New; To be or Not to be; Magdalen Stafford; The Professor; Thackeray's Miscellanies, 4th vol; Fortune's Residence among the Chinese; Life of Philip Howard; Mure's Critical History of Greece; Smiles' Life of Stephenson.

The *North British Review* is not to be given up altogether ; it is only to be shorn of nearly all its most meritorious brilliancy. Professor Fraser is dethroned from the editorship ; Isaac Taylor's contributions, we presume, will in future be carefully excluded from the sacred precincts of the orthodox organ ; and Kingsley and his school are to be altogether thrown overboard—at least so says the *Record* newspaper, and great seems to be its joy at this ill-omened termination of the Edinburgh squabble.

COMMERCIAL REVIEW.

Since writing our last Commercial Review, we have had a large number of arrivals from all parts of the world, bringing produce and manufactures suited to our requirements. From the United States, three American vessels have brought 5780 barrels flour (inclusive of a parcel of 1800 manifested for Algoa Bay), besides a considerable quantity of staves, and lumber, and that assorted variety of American manufactures, which is usually known by the name of "notions." From London and Liverpool, we have had

eight arrivals, which have supplied us with an abundance of iron hoops for setting up the staves, above referred to, into pipes and hogsheads, consequent on the advices sent from this part of the colony about six or eight months since. As a few additional coopers have also been introduced, we hope that the price of fustage will shortly be reduced to its former legitimate level. Bar iron and slates form a considerable portion of the cargoes from Great Britain; 4050 boxes of soap, and 400 cases gin, also have been imported, in addition to the somewhat novel introduction of 12 cases chicory. From the Brazils, the importation of coffee has been large, as much as 5054 bags having come to the port of Cape Town alone during the past month. As the prices ruling in Rio are, by the last accounts, high, and the exchange pretty firm, at 27¾ to 28, we do not apprehend any decline here, except in case of anxiety to realize, by shippers' instructions or otherwise. As a novelty, may be mentioned the arrival of 50 bags Natal coffee per *Madagascar*. In sugar, our fellow-colonists of Natal seem desirous to enter the field in competition with Mauritius; 172 bags have just been received, and advices have reached of further missions being intended, should the price be sufficiently remunerative. From Mauritius the receipts have been 545 bags.

The Naval Department at Simon's Town has received five cargoes of coals during the past month, while in Table Bay the imports have been about 2650 tons, in which quantity may be included two cargoes for H.M. Commissariat Department. A Mecklenburgh bark, with deals and general cargo, is among our arrivals, as also a Swedish brig, the first of the season, with a large cargo of Baltic timber on board. From India, we have one cargo of rice, say about 5100 bags; but no other arrivals of importance have been introduced during the month. There seems to be some uncertainty with reference to our future supply, at least for some few months, in consequence of the very disastrous intelligence which has reached us of the mutinous conduct, followed by an almost general insurrection of the Sepoy regiments in India. It is impossible to calculate what may be the immediate effect on the producing districts, but there would seem necessarily to be an unhinging of the ordinary arrangements of business, which may take some time to re-establish on their original footing. Should the interruption which we fear not have taken place, we may expect that some of the vessels chartered from this place may be with us in about fourteen days. The *Onward* is expected from Singapore, with teas, &c. Articles of import may be quoted thus:—

Brazil coffee, 72s. ℔ 100 lbs.; Mauritius sugar, 40s. @ 46s. ℔ 100 lbs.; Caper tea, direct, 32s. ℔ 10 catty box; do., indireet, 25s. @ 28s. 6d. per do.; Gin, 33s. ℔ case of 15 flasks; white rice, 25s to 26s per bag

The ordinary shipments have been made of our various articles of export with the exception of that of wine, which seems to have considerably exceeded our average missions. Since the beginning

of the year, the greatest difficulty appears to have been in obtaining casks in any quantity. This seems now to be overcome in a great measure, and shippers avail themselves of every available opportunity for sending their wine to the English market. Contradictory accounts have been received of the prospect of the vineyards of the Continent, and of the wines of this colony in the London market; but we are satisfied that good Cape wine will realize good prices, and that the exporter of a genuine article will benefit by the care taken in its preparation.

A cargo of copper ore direct from Hondeklip Bay, consisting of 397 tons, has been shipped to Swansea, in addition to the usual exports by way of Cape Town. The Walwich Bay Mining Company are exporters this month, as well as Messrs Phillips & King, and the Namaqua Mining Company (Concordia)

Mr. Wyley's report on the copper regions of Namaqualand has been published, and affords some most interesting information on the geological formation of the country, and the surface indications on which the hopes of so many colonial fortunes were raised and blighted. It evinces great care in the preparation and may be considered as a work upon which his fame as a geologist will be founded.

The wheat crop looks very promising, and we may anticipate a good harvest. There appears some uncertainty with regard to other cereals, as oats and barley, in consequence of the conflicting reports which come up from the country districts. The vines are looking well in most parts, and an abundant vintage in 1858 is again looked for. The cultivators of this branch of agriculture who still have stocks on hand seem unwilling to realize, except at high prices. There appears to be a natural dread that the result of the wool sales in London, in July, will have been disastrously influenced by the news from India; but even those who are loudest in the expression of their fears do not appear to be able to resist their usual speculations and purchases of the article. Hides have declined in price in Cape Town, owing to advices of a somewhat depressed market in England, which may, however, be benefitted by the non-arrival of East India hides at home.

The appointment of Special Immigration Commissioners has given very general satisfaction; the business-like habits of Mr. Field, and the position he has long held here, as a member of the Executive Council, give us reason to believe that there are few who could better fulfil the functions of the office of Chief Commissioner. The name and success, as a farmer, of another of the commissioners, Mr. Carruthers, is a guarantee of his also being the right man in the right place, whilst his colleague, Dr. Way, is favourably known to us by his very lucid report on the symptoms and treatment of the horse-sickness. We cannot expect that every colonist will be satisfied with these appointments, but we do not doubt but that the majority will feel that their interests are in good hands. We hope that the commissioners will themselves see the

necessity of taking up vessels for the conveyance of immigrants, and in no way rely upon the Government officers at home to carry out this part of their duty. A rumour is afloat that a German house has entered into a contract for sending out persons from Germany (principally females) to British Kaffraria, a scheme which we trust the High Commissioner will well weigh before putting into execution. There are, doubtless, great advantages to be derived from such an importation, but every detail should be examined that we may obtain persons of good character and adapted for labouring in a new field of usefulness.

The Customs Returns exhibit an increasing trade, both in imports and exports. In the latter, the article of wool advances with amazing strides, and bids fair, with a few years' peace, to increase in as great a ratio as did that of the Australian colonies before the gold discoveries. It is very evident that the pasture and climate of this country are admirably suited to merino sheep, and that their fleeces form our principal wealth.

Freights and exchange remain unaltered. Two or three charters of troop-ships for India have been made, but the rates have not transpired.

NOTES AND QUERIES.

In a novel—the *Neighbours*—translated from the Swedish, Mr. Peter, of the popular tale, is represented as rather a poetical personage. Who is this Mr. Peter? I suspect him to be the same that is mentioned in a Danish legend, admirably versified by Henry Heine. In Heine's poem, Mr. Bender and Mr. Peter are talking over their wine. The former wagers his finest pack of hounds, that Mr. Peter, whatever be the spell of his voice, will never charm away the lady Mette (Mr. Bender's wife). Mr Peter accepts the bet, and forthwith sings so charmingly under Mette's window, that she cannot chose but follow him. At her return, early in the morning, she finds her husband standing at the door. After trying some subterfuges, she confesses to have been at Peter Nielsen's, whose voice she could not resist. "But now," she adds, "I know I must die." A few days afterwards she does die, leaving her husband inconsolable for having lost at the same time his faithful wife and his splendid hounds.

Can any Swedish or Danish reader of this periodical give me any further information about this poetical Mr. Peter? Y.

I find it stated in Cunningham's *Hand Book of London* that Westminster Hall has—with one exceptiou, the Hall of Reason at Padua—the largest span in the world for a roof unsupported with pillars, and the span is mentioned as 68 feet. The roof of the Dutch Reformed Church in Adderley-street is 80 feet wide, and is, therefore, entitled to the second rank, in this respect, of any building in the world. Who was the architect of the roof, and can any of your correspondents say whether there is anything peculiar or noteworthy in the principle of its construction? X.

GENERAL SUMMARY.

Colonial.—The P. and O. steamer *Madras* arrived in Simon's Bay on the 5th ult., after a passage of sixteen days from Ceylon and nine from Mauritius with Capt. Jenkins, I.N., on board, the bearer of important despatches from the Indian Government to Sir G. Grey, announcing the disastrous intelligence of the mutiny of the Bengal native regiments, and the massacre at Delhi, with a request for reinforcements of troops. This news, from the connection of so many Cape families with India, has caused the greatest anxiety. Immediate steps were taken by the authorities to despatch troops to India. The Cape Royal Rifles having gallantly volunteered their services to undertake the garrison duty, the Governor was enabled to despatch all the troops in Cape Town, consisting of the head quarters of the 89th Regiment and Royal Artillery. These have been joined by the remainder of the regiment, on the frontier, together with the 80th Foot, and proceeded to India in the *Madras* and *England* steamers, and H.M. steamers *Penelope* and *Megæra*. The transports *Cleopatra*, *Mauritius*, and *Belleisle*, with the 23rd, 82d, and 93rd Regiments, intended for China, were also ordered on to Calcutta, as well as the 95th Regiment intended for the Cape, to relieve the 89th. In addition to these forces, the Commissariat despatched £100,000 to India, the greater portion of which was borrowed from the Cape Treasury.

His Excellency the Governor, in exercising the powers accorded to him by the Immigration Act, has appointed the Hon. W. Field, Collector of Customs, to be Chief Commissioner of Immigration, and W. Carruthers, Esq., of Caledon, and Dr. Way, of Burghersdorp, to be Emigration Agents in England, under provision of the Act. His Excellency, as High Commissioner, has also entered into arrangements with the house of Goddefroy and Son, of Hamburg, to bring out 4000 Germans.

A meeting was held in the Commercial Exchange on the 17th ult., attended by the Bishop of Cape Town, as well as ministers of various denominations, for the purpose of raising funds for the relief of the sufferers by famine in Kafirland. A committee was appointed to collect subscriptions, a step that has been followed up in several other places.

Comparative statements of the revenue and expenditure of the colony and the customs' returns, for the last quarter, have been published, and evince, in the most satisfactory manner, the rapid progress of the colony,—the revenue having exceeded that of the corresponding quarter of last year by £23,253, and the exports for the same period by £236,260. The total exports for the quarter have been £514,213.

Parliamentary.—The requisitions to the several candidates for the six vacant seats in Council are sent in this day. The present candidates are the ci-devant members, Messrs. Godlonton, Wood, Fleming, Metelerkamp, and Cock, together with Mr. S. Probart, of Graaff Reinet, and Mr. J. Mosenthal. Messrs. Meintjies and Ziervogel, members of the Assembly, and J. H. Greathead, of Aliwal, were invited to stand, but declined.

Miscellaneous.—The functions of the Harbour Board ceased on the 1st ult.

The Cape Royal Rifles have added to their regiment a corps of cavalry and one of foot artillery.

An iron lighthouse, to be fixed on the point at the Cape of Good Hope, sent out by the Admiralty, has been received, and will shortly be erected.

EARTHQUAKE.

On the night of the fourteenth August, a very considerable portion of the South African peninsula was agitated with the vibrating undulation of an earthquake. As far as we have been able to learn, the shock was felt over an extent of 200 miles in length, by 100 miles in width, or an area of 20,000 square miles. Whether synchronous or not over the several districts where it was felt, it is impossible to determine, owing to the inaccuracy of observers in noting the time of the occurrence of the phenomenon. In Cape Town, it was felt precisely at half-past eleven, and in the Gardens, was felt first with a gentle tremor and low muffled rolling noise. As the noise approached and loudened, the tremor increased, and at its maximum, intensely shook the houses for a second or two, with a sharp abruptness. When the earth wave passed under the residence of the writer, the noise for a moment rose into a perfect din, gradually diminishing again until after a few seconds more, it died away in distant echoes. The duration, altogether, was not more than twenty or thirty seconds. The direction of motion has not been satisfactorily traced. In Cape Town, the general opinion was that it passed from north to south. In some of the country districts, the violence of the shock was considerably greater than in Cape Town, in several instances doing considerable damage to buildings of different descriptions. The remotest limits at which it has been felt are, northward, to the Koup, in the district of Beaufort, and eastward to Genadendal and Robertson. There was nothing particularly noticeable in the atmosphere or the weather to presage the shock. The evening was warm and calm, and the air clear and transparent. It was noticed by several that meteors were more numerous that night than usual, but that is readily accounted for, since August is specially the meteor month. The most remarkable peculiarity, however, was noticed for several days subsequent to the earthquake. It was a distinctly perceptible magnetic storm, as indicated by large exceptional and unexpected oscillations of the needle at the magnetic observatory.

Meteorological Register for July, 1857.

Deduced from five Observations daily Sundays excepted.

Hours of observation, 1h. 34m., 5h. 34m., 9h. 34m., 17h. 34m., 21h. 34m., Cape mean time.—Height above the sea level, 37 feet.

Day	Barometer corrected at 32° Fahrt.	Thermometer		Humidity of Air. 'Saturation = 100'	Self-registering Thermom.		WIND.		Rain.	Cloudiness in tenths.
		Dry.	Wet		Max.	Min	Force.	Direction.		
	Inch.	°	°		°	°			Inch.	
1	29·850	54·02	50·06	75·6	58·8	46·2	5·1	NWbW	0·776	9·3
2	30·015	49·50	45·90	76·4	53·0	43·0	2·9	NWbW	0·114	6·9
3	29·739	52·62	49·20	79·0	55·8	47·1	5·2	NWbN	0·690	8·6
4	29·996	53·10	48·30	70·6	56·0	47·7	1·2	WSW	0·060	6·2
5					57·1	47·1			0·575	
6	30·270	51·36	47·68	76·8	55·5	42·7	0·4	WNW		2·9
7	30·157	52·02	49·34	82·8	57·2	41·8	0·5	SWbW		5·7
8	29·952	65·30	55·80	51·4	71·2	58·0	1·7	WNW		4·3
9	30·107	57·46	55·52	88·8	62·2	51·0	0·7	NWbN	0·012	6·3
10	30·297	56·06	52·12	76·8	61·0	49·0	3·1	SW		0·7
11	30·164	57·68	54·28	81·0	62·5	49·5	2·2	SbW		4·3
12					68·0	48·8			0·002	
13	30·203	54·80	52·68	87·0	63·3	44·8	0·1	S	0·001	5·1
14	30·202	53·26	51·06	86·6	57·7	47·9	0·7	S½W	0·180	8·0
15	[illegible]44	51·38	47·60	75·8	57·0	44·1	3·4	SSE	0·009	4·5
16	[illegible]501	50·48	46·30	73·0	55·5	43·5	3·1	SbE½E		0·6
17	30·527	52·46	46·76	65·2	57·5	46·1	3·0	S½E		0·1
18	30·476	54·84	49·24	67·4	59·6	46·9	2·7	S½W		0·4
19					63·8	46·9				
20	30·367	54·10	48·68	68·6	63·5	40·0	0·3	S½W		0·7
21	30·306	54·16	49·6[illegible]	73·8	64·1	41·9	0·0	S½W		6·7
22	30·183	57·94	49·[illegible]2	55·6	67·8	40·8	0·2	WbS		0·9
23	30·098	58·34	50·86	60·6	69·0	45·3	0·6	NWbN		0·7
24	30·151	55·96	51·14	74·0	64·8	47·8	1·3	NW	0·001	4·1
25	30·146	53·24	51·30	87·4	58·0	44·5	1·1	NbW½W	0·026	6·7
26					61·8	45·9			0·015	
27	30·143	54·66	50·78	76·6	59·0	45·5	0·9	W½N	0·015	4·6
28	30·185	54·88	51·06	77·2	58·7	47·2	0·8	SWbN		2·8
29	30·077	57·84	52·96	74·8	68·8	48·9	2·5	NWbN	0·003	5·2
30	30·074	55·36	52·06	83·8	59·0	50·0	2·6	NWbN	0·600	6·7
31	30·146	54·40	52·98	91·2	59·3	48·8	0·6	NNW		9·8
Mean	30·173	54·71	50·49	75·59	60·85	46·41	1·7	WbS	3·079	4·5

MEAN RESULTS FOR THE SEVERAL HOURS OF OBSERVATION.

	A. M. h. m. 5·34	A. M. h. m. 9·34	P. M. h. m. 1·34	P. M. h. m. 5·34	P. M. h. m. 9·34	highest	lowest
Barometer, cor. to 32°, inches	30·158	30·202	30·153	30·166	30·187	30·575	29·624
Thermometer, dry bulb, deg.	50·44	55·7	59·80	55·26	52·29	69·10	43·20
„ wet bulb, deg.	47·80	51·54	53·51	50·91	49·19	60·40	41·00
Humidity of the air, per cent.	80·19	75·52	66·93	74·74	80·56	96·09	40·00

(Signed) PIERCE MORTON,
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CAPE MONTHLY MAGAZINE.

HINTS ON THE STATISTICS OF THE COLONY.

BY THE HON. F. W. REITZ.

In undertaking to offer a few straggling ideas on a subject of so wide a range as our colonial statistics, I am fully aware that the attempt may appear arrogant in me; but it will be seen that I have not ventured to do more than skim the surface of the question. And as it is one which is intimately connected with our agricultural prospects, and as local information, however defective, must be acceptable, at least to some extent; whilst, moreover, the editors of the *Magazine*, as well as the readers of it, must of necessity show a great deal of indulgence towards those who may be anxious to lend their feeble aid, I shall proceed without further scruple.

I confess that the impossibility of always disconnecting the subject from political, or even religious ones, makes me, who am naturally inclined to express my thoughts freely, feel somewhat as if my hand were cramped by a censorship, when writing for a periodical from which such topics are, very properly, excluded.

The object of statistical details in old countries is principally, in the first place, to lead to observation of the increase or decrease of population, either with a view to the military resources of the country, or to mitigate and check the danger of pauperism. An irregular exodus, at frequent intervals, from Germany, Ireland, the Highlands, or England, as the land of the free, of which the potato disease, the gold diggings, or the effects of chemical science on barilla are the moving causes, must disturb the calculations of modern Malthuses to a considerable extent. As we have no manufactories, the question of population becomes a very different one, in many respects, in our colony. If it be not impossible, it is at least less important, in an economical point of view, to ascertain whether our numbers increase by births or immigration.

One of the greatest impediments to the obtaining of correct information is the admitted difficulty of preventing

the statist from performing his labours with the aim of proving or disproving a *preconceived theory*, whilst at the same time the *object* should be clearly understood by him.

With us, a sort of census is taken annually; in Great Britain and America (where, I believe, they are more correctly taken than anywhere else), every tenth year is considered sufficient; the French census is obtained every fifth year, like the ancient Roman, one at the *sue-ove-taurilia.*

I shall endeavour to point out a few of the probable reasons why the annual registers of our colonial field-cornets are less correct than they might be. And here I must confess that I am led to agree with most others in this supposition of their incorrectness, merely from the apparent absurdity of parishes, as in the division of Swellendam, having, within the last twenty years, subdivided into half a dozen new ones, whilst on the returns there appears no striking decrease in the number of children christened in the original parish from which the others have been sliced. The same is the case as regards the number of young people admitted to membership (I speak now more particularly of the Dutch Reformed Church). Again, any one who makes a rough calculation of the number of residents on each farm in his immediate neighbourhood, compared to the number of residents living on those farms twenty or thirty years ago, cannot help coming to the conclusion that there is something wrong about the population returns. And yet, I believe, the system of field-cornets gives us an advantage over many other countries with respect to the acquisition of information of this kind. Of the white or European population, at any rate, I think it would be possible to get perfectly accurate and reliable returns, for the field-cornets know almost every resident in their wards; nor do I think that the fear of being taxed or forced to do burgher duty has much or anything to do with the falsification of the returns. Nor are there any, except perhaps a few European emigrants, who lead so much of a wandering life as to be (in colonial phrase) like the ostriches, "at home wherever the sun sets." With regard to the coloured labouring population, however, there is, in many country districts, much mismanagement, which might yet be easily remedied, provided the missionaries, the field-cornets, and the people themselves, were made fully acquainted with the real and only object of obtaining a correct census. At present, many field-cornets do not consider it their duty to take down the names of any coloured persons in their wards, who profess to belong to a missionary institution; the coloured people themselves prefer being registered, or sup-

posed to be registered, at an institution, both from a sort of *esprit de corps* and from a recollection that on former commandoes those not belonging to institutions, and residing on farms, were ordered out as wagon-drivers and leaders, whilst their brethren, of the same class, from the institutions marched out in a body to the seat of war (which they much preferred); as also, perhaps, from a lingering notion that a connection with an institution in this manner was a sort of safeguard to their freedom. Now, it must be evident that as a very large majority of the men and boys, at any rate, must be constantly residing away from the places where they are registered, in order to enable them to support their families; and as many, though belonging to no institution, escape registration altogether, not only the density of population of particular field-cornetcies, or portions of them, cannot be ascertained, but hundreds manage to escape both "Scylla and Charybdis." One most absurd consequence of the present practice is, that some field-cornets, who believe it to be no part of their business to enumerate the married coloured women in their wards, send in, notwithstanding, most conscientiously, a list of births, which births may, for aught the civil commissioner knows, be again registered at the missionary institution. Indeed, I have heard of one field-cornet who gave in a list of a ten times greater number of births than there were married women in his ward. It may have been a hoax; though, at any rate, it was not an impossibility.

The gradual comparative increase of population in the several divisions, I conceive, must be taken as evidence of the comparative capability of those districts respectively to absorb more labour; and such data must be valuable to the Government when carrying out their emigration scheme. Then, again, the births and deaths will prove whether there be not a great disproportion in the mortality amongst coloured children, when compared to whites; and this may lead to research into the state of provision for their physical wants—to the combating of hereditary disorders, or those resulting from want of sufficient clothing and nourishment, or the common comforts of more civilized people.

Among the whites the apparent greater number of men who have entered into second, third, and fourth marriages, would seem to indicate that deaths among women are more frequent than among men. This would be an interesting fact to learn, with a view of proposing improved obstetric assistance—if that be the want in which the evil originates; as also to enable assurance companies to arrive at more correct tables of mortality. As an instance of this point, I

believe the present very high rate charged by the only office which undertakes to grant annuities must be owing to insufficient data of this kind.

For the reasons already stated, it becomes next to an impossibility to discover what portion of the available labour of the colony has been utilized during the year. Men, women, and children go out by fits and starts; but still if the coloured people once came to understand that there was not the slightest intention of laying the least constraint on them as to the mode of employing their labour, I think it might be ascertained, with tolerable accuracy, during how many months every man, woman, and child was engaged as herd, indoor servant, or at sheep-shearing, harvesting, &c., &c. This would be valuable information indeed; and even the months and weeks that women and children are out of employ at the institutions, or in villages, might be worth knowing to those who would be inclined to propose modes of industry suited to their peculiar situation.

The number of shoemakers, carpenters, blacksmiths, wagon-makers, masons, thatchers, and so forth, would serve to indicate, more or less, the progress in wealth of each division; but not a few take up these trades temporarily.

The price of labour (which, strange to say, does not vary in proportion to the price of the necessaries of life) is ascertainable without much difficulty. For though, in many instances, the labourer is paid in kind, to a great extent, much in the same way that the highest class of East Lothian ploughmen, I am told, are paid at the present day, there are always a sufficient number of labourers receiving money wages in full to enable us to obtain an average price.

Connected with the state of population is the food consumed. Among the Hottentots barley is much used, particularly in dear times; among the Kafirs and Fingoes Indian corn; the Malays consume a great deal of rice and fish: whilst, not many years ago, in the Sneeuwberg, we are told, the farmers themselves lived upon meat, with very little vegetable food. The Sneeuwberg boer, with fat mutton for his sole diet; the Irish labourer, with his potatoes and buttermilk; the French peasant, with a slice of bread and garlic; and the English *navvy*, with his bacon or beefsteaks and porter, as mere animal machines, might be compared and contrasted economically—if intellect had nothing to do with it—as an element in the calculations of political economy. Soyer is a great philosopher, as well as a great cook; and the French did hard work, I believe, on the *soupe maigre* in the Crimea. At any rate, the *chef d'armée*, as well as

the *chef de cuisine*, considered the work and the soup *consommé*.

Our statistics of agricultural produce and live-stock have been very imperfect hitherto. I think this may be partly ascribed to the fact that the field-cornet goes to every one in his ward, and takes down the quantities and numbers each individual thinks proper to state. Now, if we recollect that not many years ago the very same process was gone through with the acknowledged object of levying an *opgaaf* on every sheep and head of cattle, those who are conversant with such matters will readily perceive what influence habit and suspicion may have in preventing anything like a fair return. It would, perhaps, be better (if the field-cornets are still to be employed) to leave the calculation to themselves, and to let them obtain the information as they think best.

The quantity of wool grown in each district, as compared to the number of sheep and area of pasturage, would be a safer calculation than the quantity exported, which comprises a good deal of wool grown beyond the boundaries of the colony. The same remarks will apply to hides, horns, and many other articles.

The calculation of the increase of sheep must also be much affected by the number consumed on the farms,—a most difficult thing to ascertain, and nothing but an annual report can give anything like a fair average of deaths and births in this colony, where droughts, epidemics, and Kafir wars produce such great irregularities.

If the quantity of butter made, compared to the cows kept, could be summed up, a comparison, of some utility, with the breeds of other countries might be drawn.

The range of prices, in different years and in different districts, of all kinds of live-stock, it is evident, it would be desirable to have. Then as to grain, the quantity per acre will be found to vary very much indeed in various districts; on irrigated lands and unirrigated lands; or in dry and wet years on the latter. If we suppose that the climate in America enables the farmer there to raise *twice* as much wheat per acre as we can here, that difference would perhaps suffice to pay for the expense of water carriage from Canada or Massachussetts at once. It must not be lost sight of that when the field-cornets state that so many *morgen* of wheat have been sown, it is mere guess work; few people know the extent of land they plough and sow.

It would not be difficult to add to the other questions how many ploughs have been employed, how many head of cattle to draw them, how many hands to each plough, and

what descriptions of plough are used; how many hands to reap the crop, and, where corn land is irrigated, the cost of labour attending the leading of the water over the growing crops.

I have little more to add. With regard to education, the reports of the Superintendent-General are scrutinised annually by the Parliament. A knowledge of the density of population, in certain localities, with the view of establishing lower class and itinerant schools, is still a requisite. Such a comparative view of the concentration of the inhabitants would also facilitate any plans, either on the part of the Government or others, for the promotion of religious instruction; and where the Government has to interfere, perhaps the best check to an incorrect list of the several denominations would be the plan of making every man sign his name to a printed form, setting forth what sect he belongs to.

Statistics, roads, bridges, their value, extent, annual expense, new roads and mountain passes desirable to be made, with probable cost, can be obtained through the divisional councils. Criminal statistics have been hitherto accurately made up from judges and magistrates' books; and Mr. Pears' excellent report on the convict establishment leaves nothing to be desired in that respect.

The number of churches, voluntary contributions, numbers attending, as well as statistics of trade and commerce, including banks, assurance offices, together with medical statistics (as far as attainable from the hospital and army reports) are perhaps as easily procured as in any country; and the consolidation of these data, now scattered in various publications, would perhaps be all that is wanted.

The principal desiderata are—correct population returns, and correct returns of stock; produce, such as grain, wool, &c., with the distances of the most productive districts from an export or other market. But the most valuable information of all would be the quantity of land capable of irrigation, or of profitable cultivation, even without irrigation, which lies untilled for want of access to a market, or for want of labour and capital. Much of the capital accumulated by wool-growers is periodically carried into the Free State, by men who go to purchase cheaper land further off. Generally speaking, the farms remain unimproved, and are delivered to the new comer in almost the same state of nature in which the original proprietors found them. In this there is a wide difference between our "trek-boer" and the Canadian or United States backwoodsman; and if we could retain the

capital within the colony, there would, no doubt, be more abundant employment for immigrants; but until schoolmasters, in large numbers, are sent out by our emigration commissioners, the majority of our agriculturists will continue to wander far away from their place of birth, rather than by the expenditure of money improve, with a view to future profit, the lands they now possess.

I am afraid this paper will be found very wearisome, even to those who take sufficient interest in the matter to wade through it; but if from among a large quantity of chaff a few grains of useful hints can be picked, I shall be more than compensated for the time I have devoted to it.

KAFIRS AND KAFIRLAND—A SETTLER'S STORY.

CHAPTER I.

MATRIMONY.

To a person of any sensibility, how deeply affecting, nay how overpowering it is, to ponder over events that have occurred long years since, and to recal those remembrances of the past, which have remained hidden or buried among the more vivid realities of the present. It is especially so when the life of the individual thus meditating has been chequered by occurrences of an unusually exciting nature.

Such were my feelings when, a few days back, I lay beneath the shade of a wide spreading fig-tree, luxuriating in the balmy warmth of a South African sun, and busying myself with snatching from the storehouse of the memory, recollections of deeds long forgotten, of friends now scattered over the earth, and of dearer ties ruptured and broken by the rude grasp of the great destroyer. While thus taking a retrospect of my life, it occurred to me that the scenes and events marking one particular period were of a character calculated to interest, and perhaps instruct others beside myself. Therefore being, as I believe, a man of some resolution, a decision was immediately formed, the result of which is the present and succeeding sketches. I am further induced to publish my recollections from the fact of many of the incidents I am about to narrate having taken place on the Frontier during a troubled and excited period, and their thus being possessed of an interest rather novel and unusual.

In commencing this autobiography, I cannot do better than plagiarise from a celebrated English novelist, and inform the reader that

> Owen Evanson is my name,
> Welshland *was* my nation,
> Africa *is* my dwelling place, &c.

I was left parentless by the death of my father when about twenty-two, and my two brothers—the only near relatives I had left—being immersed in their own affairs, and as I was possessed of a fixed income of £300 a year, it appeared to me, under the circumstances, that I could not do better than seek that "change" I so much desired, on the shores of Africa; and, accordingly, in the year of grace, 1843, I entered upon the free, and, to me, most congenial life of a South African colonist.

Being possessed of means which, happily, enabled me to gratify my fondness for natural scenery, I pitched my tent on a spot, in the district of George, overlooking the magnificent expanse of the Indian Ocean, and surrounded in every direction by views of the most varied and pleasing character.

I speedily added to the charms with which nature had blessed my abode the more refined and civilized appearance of a cultivated homestead,—an oasis amid the unkempt luxuriance of an African wilderness. About twenty miles from Evanscliff, for thus I had named my new home, might be seen the village or township of Carsdale, which consequently became my weekly resort, both for the purposes of relaxation, as well as to learn what was going on in the big outer world. There soon, however, came other and more forcible attractions connected with the village, which were destined completely to change the tenor of my life, and to hurry me along the resistless tide of circumstances so complicated and varied, that I should formerly have regarded their realization as one of the wildest flights of imagination, or the absurd vagary of a dreamer.

I fancy the reader is saying now, "we know what's coming, the old story over again, love, jealousy, and a marriage, and then a perfect Eden of happiness." Know, therefore, sapient friend, that in some few respects you are not far off the mark, though, alas, many a heart twinge and gloomy recollection tell a different tale. But, after all, looking at the matter in a calm, logical light, are not love and marriage the only rays of romance which gild the otherwise prosaic progress of man's journey through life? Should we, therefore, be surprised at their being seized upon by those writers whose object it is to amuse and interest their readers and afford the mind that relaxation it, at times, so unmistakably needs.

Like most other villages, Carsdale had its magistrate. That official was Mr. Nolan, a gentleman afflicted with a large family, the eldest of whom chanced to be a daughter, a charming maid of nineteen. From the paucity of educated society in my neighbourhood, I, of course, became intimate with Mr. Nolan's family, and as a natural consequence fell violently in love with Miss Annie, the aforesaid daughter. But the question was—and I was daily asking it of myself—whether was the young lady in love with me or not, and if not with me, with any one else? as, being almost the only educated and pretty English girl for many miles round, she was, to use her own expression, "plagued" with suitors innu-

merable, who hovered round her like a cloud of mosquitoes till she had not, in fact, a moment's peace; and the assiduities of some of these tormentors at last reached such a height that, as a *dernier ressort*, she had to forbid their presence altogether at certain hours, under pain of instant dismissal. This was a wise and young lady like measure, which, at least, secured for her a few hours, when she might wander at her ease and indulge her maiden meditations without interruption, by being pounced upon by one of these, to her, excessively irritating human gnats.

There was one of my rivals who requires from my hand a more particular notice than the rest. Just as much as I am a born Briton, do I possess that real honest hatred of anything like guile or deceit which forms so strong an ingredient in the character of sterling John Bull; so that even before I knew that Louis Lyzard was to be my rival, I disliked and despised the man. Born of French and Italian parents, he had inherited the libertine infidelity of the one nation, with the vindictive jealousy of the other; and though they were veiled by a handsome exterior and plausible address, yet mother nature would peep out when any incident occurred arousing these predominant feelings.

It happened that the circumstances under which I first became acquainted with Lyzard were calculated to display, in all its unsightliness, the glaring malignity of his character. I was one day on my way to Carsdale, mounted, as usual, on the back of a stout nag, when suddenly I was startled by loud and repeated cries, as of some one in distress. Spurring my horse, I hastened on to ascertain, if possible, the meaning of these very unusual sounds. A few hundred yards in advance, where the road was very narrow, being, in fact, a "cutting," I came upon a man, apparently European, most barbarously and unmercifully flogging an unfortunate Hottentot, who was vainly entreating him to desist. As it seemed a case of unwarrantable persecution, I rode up and called upon the man, who was Lyzard, to desist. Whether I looked threateningly fierce, I cannot say; but he immediately threw off his hapless victim, and, giving me the benefit of a fiendlike scowl, galloped away,—verifying the oft-repeated saying, "that the biggest bullies are the greatest cowards."

On inquiring of Jantje the reason of his being assaulted, he, with many protestations of truth, declared that having some cattle in his charge, he was driving them down the cutting, and had got on about halfway when Lyzard, who was following, called him to drive them back, and let his lordship go first; alleging that his horse was unusually restive and would not pass the oxen. Jantje, however, wisely considered it the speediest way to drive them right through the cutting, and then on the open veldt; and, accordingly, continued to advance. On which, Master Louis, in spite of his "restive horse," galloped up and commenced mauling the poor "Tottie" in the manner already described.

This rencontre (which I have been particular in relating, that

the reader might have some insight into the character of the man) took place just before I became acquainted with Mr. Nolan's family, and, therefore, before I knew of Lyzard's intentions in that quarter; so that when we afterwards met, I had some difficulty in concealing the very low estimate I had formed of his disposition; and, afterwards, when acknowledged rivals, we scarcely attempted to hide our mutual dislike; on his part, I may say hatred,—and a hatred, black and rueful, as subsequent events proved it to be.

My position at this time was something like that of a man on trial for a capital offence, who anxiously tries to read in the countenances of the jury his pending fate. My jury was Annie Nolan, respecting the state of whose feelings towards myself I was in complete ignorance, and vainly strove to obtain, from the index of her countenance, some clue to the secret locked within her bosom. One day, however, a very opportune circumstance threw a little light on this very dark and obscure subject. I had one morning ridden to Mr. Nolan's at an unusually early hour, and was walking up to the house by a rather retired bush path, when I was suddenly arrested by hearing the tones of a voice well known to me above all others. What else could I do, than endeavour to discover from whence they proceeded? Cautiously making my way through the bushes, I found myself at the back of a small bower-like recess, the especial resort of a certain young lady, who happened to be there at that moment holding a murmured colloquy with some invisible visitant. The temptation was too irresistible; a presentiment that I should hear something respecting myself forced me to stay, though honor and delicacy demanded I should retire; love carried the day, and I staid and *listened*. Yes, most correct reader, here was Owen Evanson, who looked upon himself as the soul of honor and propriety, with his head stretched forward, and his eyes all eagerness, actually eaves-dropping, striving to catch every word that fell from those bewitching lips—invading the retirement of a lady's inmost thoughts. However, I thanked my stars, afterwards, that I had thus transgressed. The lady, as usual, was pondering over the merits or demerits of her—what shall I call them? Lovers is too romantic, sweethearts too housemaidish, followers too cookified, swains too poetic; then let it be admirers. I say, as usual, for I dare challenge all young ladyhood, whatever the dear creatures may themselves say to the contrary, that we *men*, we "wretches," are ever uppermost in their thoughts. A girl's mind is a kind of mental photograph, and any of the superior sex who come within its immediate influence is sure to leave his image impressed on its surface. So Miss Annie was running over her admirers in some such manner as the following:—

"Pa would like me to have Fred. Grumm, but he's too stupid; then there's Frank Holton, whom mamma's so fond of,—why I might just as well marry an elephant." Here several more were enumerated, with like results. "Mr. Lyzard *is* a trifle

better (slight rustling among the bushes); for he's handsome, at all events, and can talk sense, which the others can't, excepting Owen Evanson, who,—well, he might do (the branches suddenly become fearfully agitated); only he's never yet—I wonder why he's never——pah! take the whole lot of them, what donkeys men are to make such fools of themselves." Miss Annie here walked out of her retreat in an apparent pet, the reason of which I could only conjecture, leaving me in a state of unbounded satisfaction.

It so happened that I had never yet made what is termed an offer, a negligence arising partly from a fear of refusal and a dread of being premature; as it was, by over caution, I had nearly lost the prize. Now I determined to seek Annie Nolan without further delay, and deliberately do that awful thing—pop the question.

Pop the question! and a very serious question it is too, however much crotchety old bachelors may endeavour to turn the matter into ridicule; for not only does the future fate of the two principal actors hang upon the slender thread of a woman's will (where papas don't interfere), but the destinies of beings yet unborn depend upon the utterance of those two little words, nearly the most insignificant in the language.

Doubtless many of my male readers can sympathize with me in the emotions I experienced preparatory to undergoing the severe ordeal I was about to pass through; and, if so, they will readily imagine how untiringly I perambulated the most secluded spot I could find in the neighbourhood, arranging my ideas, and framing a neat little speech for the trying occasion.

Alas! how needless had been my trouble; no sooner did I find myself, about noon, in the presence of Annie—who happened to be sitting alone in her father's best parlour—than all my grand thoughts and pet speeches were scattered to the winds. However, I had made up my mind to do the thing; and, some how or other, I was determined it should be done. Annie was sitting in what, to my eyes, was a bewitching *negligé*, busily engaged in fabricating some article of unknown use or utility. She seemed utterly unconscious of my intentions, much to my discomfiture; for like a fool as I was, I had fancied she would see at a glance how affairs stood, and kindly help me out of the difficulty; as if any but old girls (I beg their pardon), on the wrong side of thirty, ever thought of such a thing. Hoping to interest her, I very innocently seized the robe or garment she was sewing, and, in a very complacent tone, asked for what it might be intended?

"Sir," said Annie, looking alarmingly stern.

Thinking she had not heard me, I repeated the question.

"Really, Mr. Evanson, I was not aware you came here to insult me with impertinent and unwarrantable questions," replied she, bundling up her work and substituting the lighter occupation of crotchet.

A dim idea of the real nature of the garment flashed across my mind, and I immediately poured forth a stream of apologies.

Upon which, the lady grew more appeased, and we proceeded to converse on various topics. After a little, I remarked how very disagreeable my own house was getting for lack of female society. "There, I sat moping all evening, talking with my own shadow, in the absence of a more substantial companion, while the house itself was a perfect bachelor's hall,—shirts buttonless, meals comfortless, everything orderless, and myself cheerless. Oh, a wife *is* a treasure in the country."

"Indeed; do you think so?" laconically said my *vis-a-vis*.

"Yes," I continued, "and I've made up my mind to get one if possible." This, with a very significant look to the occupant of the other chair, who betrayed no other emotion than a more vigorous use of the crotchet needle. "And the fact is, that I want this morning to know——." At this extremely interesting and critical point, I was suddenly interrupted by an exclamation and a start from Annie herself, and looking up, who should there be in the doorway but Lyzard, with the most abominable leer on his face, I thought, I had ever seen.

"Oh, Mr. Lyzard," said my tormentor, "you're just the person I want; do show me that sketch you have taken of our house."

Mr. Louis, nothing loth, and grinning most triumphantly at me, forthwith seated himself by her, and commenced descanting upon the beauties of his detestable daub. At first, I felt strongly inclined to knock the man down; then I thought I would horsewhip him or call him out, only he wasn't worth the trouble, and I looked upon the latter as nothing more nor less than murder. At last, after fuming at my bad luck, cursing mankind in general, and Lyzard in particular, the sight of those two conversing became so intolerable that I rushed out of doors, and spent the rest of the day in rambling over the hills, till my passion subsided and I grew more composed. Do not, however, suppose for an instant that I had relinquished the chase. On the contrary, I was more determined than ever to gain my object, in spite of the machinations of that horrid Lyzard; and, accordingly, with this intent I wended my way to the charmed circle of Annie's home. The family were just sitting down to tea when I entered, and I had publicly to endure the merry taunts of Miss Annie as to my unaccountable disappearance.

"Really, Mr. Evanson," she said, "you started away so suddenly, I was quite afraid you were attacked with cholera, or something, and had fallen into the river in your agonies. I hope the fit's over."

"Oh yes," I replied in as calm a manner as possible, "I'm sorry you should have felt any alarm on my account, as such alarm is decidedly indicative of incipient disease in the person who feels it."

Annie slightly coloured at this, and the maternal fears of Mrs. Nolan being awakened, the rest of the meal was taken up by assuring her we were only "in fun."

As is, I believe, usual in most South African households, it was the custom of Mr. Nolan's family to spend an hour or so enjoying the fresh evening air, out of doors. Here was then my opportunity, but how to get Lyzard away; *there* was the rub. For once in my life I was obliged to turn diplomatist. Having given it out as my determination to leave that night, and having said my good-byes, I left Lyzard and Mr. Nolan discussing the merits of a certain law case, which had come before Mr. N. in his magisterial capacity, and observed, with an inward chuckle, the look of vindictive satisfaction with which the former saw me take my departure, evidently thinking that I had yielded the pursuit in consequence of the morning's mishap.

Of course, my going was only a ruse; and having a tolerably good guess where I should find Annie, I jogged on very complacently down the path I had passed through in the morning, and soon reached the well-known spot. I then gave my horse to a native, who had followed by my directions, and struck through the bushes for "Annie's bower." It was a dark night, and had suddenly become cloudy (not moonlight, sentimental reader), and therefore I could only just distinguish the bare outline of her form, seated where I had seen her in the morning. The deed was a bold one, and required prompt action; so, walking to where she sat, I startled her by saying, "Annie—Miss Nolan?"

"Mr. Evanson," was all she was able to utter (how quickly she recognized my voice).

I had profited by the morning's lesson, so dashing at once into the *heart* of the subject, I exploded with—"Annie, when I was interrupted this morning, I was about asking you to be my wife." I could feel my heart almost audibly telling the seconds during the silence which ensued.

"Really, Mr.," at last she began.

But it was no use. I knew very well that young ladies seldom give their consent instanter to such proposals; so, in short, after a little vigorous by-play of words, I extorted the one small syllable for which I waited so eagerly; and it is needless to say, sealed the compact as it should be sealed.

I will not weary the reader by an account of the succeeding hour; such scenes are too sacred for the public eye, and to the uninitiated stranger can at best appear but sentimental and maudlin.

On our return to the house, Annie flew to her own room; and I startled the family by appearing again in the parlour, much to the chagrin of Lyzard, who doubtless felt something of what I had experienced in the early part of the day. My return I temporarily accounted for, by the stormy appearance the weather had suddenly assumed. Mr. L. evidently doubted me, and I should say had a strong inkling how matters really stood.

It is needless for me to say that, before I left that night, I had informed the "papa" of what had occurred, and readily obtained his consent; of which, indeed, I had always felt certain.

Kind reader, I have not done yet; remember the old saw, that "There's many a slip 'twixt the cup and the lip," and read what follows.

We were engaged, and the world knew it; and, more than all, Lyzard knew it. What his feelings were I cannot conceive, he being one of those men (seldom good) who have the power of completely hiding their passions beneath an indifferent or contrary aspect. To all appearance he cared little for our engagement; though two or three diabolically malignant scowls at me, when he thought he was unobserved, told a different tale. And so the months wore, or rather flew, on; and the time approached when the final scene of our little drama was to be enacted.

Lyzard was always polite and agreeable to me, and of late especially so; and as I was in good humour with everything and everybody, I felt no inclination to quarrel with him. I was, of course, preparing my house for its future mistress; and, consequently, was frequently several days absent from Carsdale. One morning, towards the end of one of these exiles, I was sitting leisurely at breakfast, thinking with pleasure on my intended visit to the village that day, when up to the door rode Klaas, one of Mr. Nolan's servants, who, after having left a missive in the hands of my boy, galloped home again. I hurriedly opened the letter—of the probable contents of which I had not the least idea—and read as follows:—

"Sir,—At the request of my daughter, I communicate to you her wish, that in future all intimacy between herself and you should cease; and as her desire meets with my full approbation, I shall be obliged by your discontinuing to visit my residence.

"I am, sir,

"Very obediently, yours,

"E. Nolan.

"Owen Evanson, Esq."

You may guess my utter astonishment and horror on reading this epistle; nothing could have been more sudden or unexpected. I was quite petrified for a few minutes, and sat with the letter in my hands, looking into vacuity. Even after I had recovered my scared senses, I sat turning the letter round and round, unable to understand the calamity that had befallen me. What had I done? How had I offended? were questions I in vain asked myself, so unconscious was I of any transgression. At last, I determined to settle the matter by immediately riding to Mr. Nolan's house, and endeavouring to obtain an oral explanation from him, and if possible to vindicate myself. Suiting the action to the thought, I was quickly mounted, and soon found myself rat-tating at the familiar door.

Enter a coloured servant.

"Is your baas in?"

His baas was in, but was engaged.

"Go and tell him that Mr. Evanson would be glad to see him," said I to the dark Mercury, who immediately vanished with the

message, leaving me on the doorstep,—being too proud to enter uninvited.

Quickly the old domestic returned, and said that his master hoped I had got his morning's note, as that would answer my request for admittance. He trusted I should not trouble him again. The servant finished by handing me a scrap of paper with, written upon it, in Mr. Nolan's handwriting, the words "Kate Templeton."

A man may stand a good deal from his *future* father-in-law; but even my forbearance was not enough to enable me to brook such an insult as this, especially coming, as it did, through a menial. I had also a suspicion that Lyzard's eyes were at that moment scanning me, in my crestfallen condition, from a near window. I therefore quickly remounted, and started homeward at a furious gallop.

As to the piece of paper it was an inexplicable mystery, and I concluded was some joke of the servant. For some days after this, I wearied myself with contriving all manner of solutions to the knotty problem—what had caused this catastrophe? It was naturally all laid upon the shoulders of my disappointed rival, Lyzard, who I felt convinced was at the bottom of the plot; for such I conceived it to be. About a fortnight after this event, I made up my mind to see Lyzard himself on the matter. With this intention, I went to Carsdale, and found the gentleman at his lodgings.

I immediately opened the object of my visit, and charged him, point blank, with having been the means, some way or other, of estranging Miss Nolan from myself.

To my surprise,—for I had fully expected he would be all smiles and graciousness,—he drew himself up, and very haughtily replied, that he would answer any question as a gentleman, but such ridiculous and groundless accusations he could take no notice of.

I immediately commenced in a softer manner, but with no effect; he said he was a gentleman, and expected to be treated as one. I had, finally, to leave no wiser than I came, and having no more cause of provocation, as he had been studiously, though coldly, polite.

As chance would have it, just outside the village, I met Annie herself taking a solitary ride. Of course, I made towards her, and was at her side before she was aware even of my approach. On recognizing me, she became evidently agitated.

"Annie," I said.

Drawing herself up, she replied, "Mr. Evanson, I thought our intercourse was at an end. My name is Miss Nolan, if you please."

"Well, then, *Miss Nolan*, what can have caused you so heartlessly—"

"Mr. Evanson, you will please to leave my side immediately."

"Just one question," I cried, "Has Mr. Lyzard been poisoning your mind against me?"

"Mr. Lyzard, I believe, has not mentioned your name for a month; neither has he ever spoken a word to me about you or your affairs. Leave me, sir, this moment."

I had no alternative, and therefore turned homeward in a perfect maze of perplexity. It was quite evident that I had been accusing Lyzard unjustly; therefore, who could have been my traducer?

After this, I never went near Carsdale, or other habitation save my own,—having become quite indifferent to all that used formerly to interest me. I had got into a habit of taking long rambles over the hills, and, in fact, was becoming a confirmed misanthrope. I was one day aroused from my lethargy by hearing the following colloquy, between two Hottentot servants, which, being uttered in a horrible jargon, I have Anglicised for the reader:—

"I say, Gert, what's the matter with master; he's getting quite dumb-like?"

"Why, you see, he's never been like the same man since Miss Annie, the magistrate's daughter, jilted him."

"Why, she who's going to marry Mr. Lyzard?"

"The same," replied Gert.

This was the finishing stroke. I might bear the calamity with some degree of calmness while she was still free; but now she was to be married, and to *him* of all others. I hesitated no longer, but determined to leave the country without further delay, and with that view ordered the horses to be in readiness to proceed to Carsdale next day, to make the necessary arrangements for carrying my resolution into effect.

That evening, when sitting under the verandah, bitterly meditating on the mutations of life, I was interrupted by Andries, who came to say that a man had fallen from his horse, about half a mile from my place, and had met, it was feared, with a serious accident.

Selfishly rejoicing at the occurrence of something of sufficient interest to divert my thoughts from their one everlasting topic, I hurried to the spot and found the sufferer was a young man, evidently slightly in his cups,—a sufficient reason for his fall. The injury he had sustained was, fortunately, only a severe sprain. I had him conveyed to the house, and doctored his limb as well as my appliances and skill permitted; and had the satisfaction of finding that no serious injury would be the result. The next morning, he was nearly sound,—at all events, sufficiently so as to be able to move about.

On conversing, I found his name to be Lawry; that he was, to use his own words, "a wild scamp," but had really a good heart. When the accident occurred, he was on his way to Port Elizabeth, from thence to embark for India, in quest of renewed adventure and excitement.

One of my servants, having occasion to ask me a question,

addressing me as Mr. Evanson, on his going out, Lawry said with some hesitation, "Did I hear rightly? is your name Evanson?"

I had not yet told him my name, and on my affirming this, he asked me, greatly to my surprise, whether I had any acquaintance with either Lyzard or Nolan.

I very eagerly replied that I had.

Lawry now became very much confused and agitated, and appeared to be debating whether he should speak something evidently on his mind or not. At last, with great hesitation he said, "I am afraid that I may have been the cause of doing you some mischief in connection with Mr. Nolan's family."

The reader may imagine how urgently I besought him to explain, having an instinctive presentiment that my problem was about to be solved. He then detailed the following circumstances, which, for sake of conciseness, I give in my own language.

It appeared that being under some pecuniary obligation to Lyzard, that person had induced Lawry to relate to Mr. Nolan's family (apparently in a casual manner) various circumstances in connection with a Mr. *Evans*, with whom he had been acquainted in England, with the addition that my English part namesake had emigrated to South Africa, and was, he believed, settled in that neighbourhood. These circumstances, as might be supposed, were very disparaging to my character, as I was said to be an inveterate rake and *roue*, and was at that time engaged to more than one lady residing in England, with each of whom I corresponded, and was actually married to another. My alleged wife was this Kate Templeton. The publication of this statement would, it was expected, overwhelm me with shame at the knowledge of my exposure. These asserted facts were immediately applied to me by Mr. Nolan and his daughter, and resulted in the memorable note, which had caused me so much misery.

On my informing him of the real position of the case, Lawry expressed unbounded sorrow, and agreed to go with me at once to Mr. Nolan's residence and explain the matter, with, we hoped, satisfactory results.

In a few hours we were both at Mr. Nolan's door, and obtained an interview with that gentleman through the use of Lawry's name, who soon told Mr. Nolan the object of our visit, and explained fully his share in the transaction.

It was pleasant to see the beam of pleasure which lit up the magistrate's face, on finding how totally without foundation had been the accusations brought against me, and how heartily he welcomed me again on my former footing.

On hinting what I had heard respecting my affianced and Lyzard, his only reply was a guffaw of laughter at, as he termed it, the bare idea of such a thing. "Why," he said, "Annie would as soon marry a Kafir as Lyzard. However, I'll take care we've seen the last of him."

I need not describe the reunion with Annie; she had always

cherished a vague hope that my character might be re-established. and had, I believe, suffered considerably; though her maidenly pride, and those great powers of endurance which. I admit, belong pre-eminently to women, had prompted and enabled her to conceal her feelings.

Neither will I tarry over the time which followed, or on that day when, standing by the altar of the little church, we were united as husband and wife.

How beautiful our home looked, as we rode towards it that evening, irradiated by the beams of the setting sun. Do not for a moment, reader, picture to yourself an oriental palace with marble walls, for my dwelling was but a long, low, thatched cottage, surrounded by that indispensable accessory, a spacious verandah, trellised with flowering creepers, and surrounded by a luxuriant garden. It was situated on the verdant brow of a forest-clothed hill, with an extensive and beautiful valley stretching out in front; beyond which was the vast placid ocean.

On we rode, my wife and I, on this our first journey down the path of life. Aye, how beautiful to my eyes she seemed that day. Hers was not the chiselled outline or faultless contour, but it was the bright, the sunny, and happy expression that gave to her face its inexpressible charm; and now, with her countenance suffused with the sense of full happiness, and her eyes beaming forth love and tenderness, she seemed to me rather an angel given to my keeping for a time, than the lifelong partner of my joys and pains, happiness or sorrows. On we rode, and the birds seemed to trill a sweeter strain, and the rivers to ripple with more cheerful sound, and as we gazed back on the glowing sunset, the path of life seemed strewn with flowers, and in the extreme of our present happiness we saw nothing of the dark clouds gathering in the horizon of the future; nor, as the last rays of light from the waning orb gilded the rushing waters, recked not that the day-king might be behind the western hills, typical of the eclipse of some future period of our own hopes and bliss.

The opening episode of my story is now told, and for a month the curtain falls over this, the first scene, in my life dream. When it again rises, 'twill be among storms and tempests, of which these my first troubles were but the precursors and foreshadowing.

WHO FIRST DISCOVERED AMERICA?

THERE is a charm in old countries which those nursed in a colony, where everything is comparatively new, can never fully realise. Throughout Europe some historical events are associated with almost every spot visited by the traveller;

and, in Great Britain, this is especially the case. You can scarcely ride ten miles, in any direction, throughout England, without passing some ruined fortress, noble even in decay, calling to mind serfdom and feudal tyranny in ages gone by; or seeing the towers of some venerable church or cathedral, treasuring, on its tombs and pictured windows, the records of ecclesiastical history since the time of the Saxons. The undulating downs of our south-eastern coast, and many a field now luxuriant with waving corn, have often been stained with blood in the fury of battle; and the white shores of Kent call to mind Julius Cæsar and the Norman conqueror. The traveller, from Devizes to Salisbury will see, in Stonehenge, the embodiment and record of Druidical mysteries at a time when Britain was yet in the gross darkness of heathenism. In walking through old Chester you pass along the walls which once were manned by Roman legions; and, indeed, so completely are the commonest affairs of life associated with historical reminiscences that you may stroll heedlessly through Temple Bar, and find yourself in the hands of a hairdresser within the very palace where once proud Wolsey sat in state.

The visitor to the United States will be unavoidably impressed with the newness of everything that meets his eye, and the absence of anything fairly entitled to be called "antiquities." There the oldest cities appear fresh and bright. Their public works and buildings seem to be the work of those artisans whom we pass in the streets; and it is surely no wonder if we at once adopt the national motto *go a-head*, and, forgetting that the country has any past history at all, only think of her future influence and importance in the world. It is true that we may visit the field of Lexington, and the monument which crowns Bunker Hill, leaving behind us a little of our national vanity, as a tribute to the valour which could "lick the Britishers." Or we may see, carefully preserved in the town of Plymouth, the rock upon which the pilgrim fathers landed from the *Mayflower*. But these we regard as records of comparatively recent events, and still wonder at the paradox of a powerful empire with a history but of yesterday.

Such were my reflections when I first resided in the New England states; and my curiosity was fairly roused when I learned that Massachusetts contained a work of art said to have been executed by Europeans before the Norman conquest. As I was then in the manufacturing town of Taunton (about forty miles from Boston), full of antiquarian zeal, I resolved to visit this interesting monument, which was

not more than nine miles distant. Accordingly, I set out one bright frosty morning in November, 1848, with a resolution and devotion to my enterprise which would have done credit to a member of the Royal Archæological Society itself. The air seemed to bite into my face, and the hard ground rung like iron under my foot. I had soon left Taunton behind with its busy work-people; and the only travellers upon the road were a few merry groups of children going to attend the town school,—the boys were noisy and mischievous, as boys are generally, and the girls were very pictures of comfort, being muffled up in cloaks and fur, with their pretty crimson faces peeping out from quilted silk hoods, adorned with tassels and ornaments of the gayest colours. Their thick woollen gloves, univalve in form, called up quaint and pleasing recollections of distant childhood. The shingle cottages of the farmers appeared whiter than ever in the dazzling clearness of winter sunshine, and the landscape was made cheerful by many a clump of firs or hardy spruce still beautifully green; while an occasional view of the winding river increased my eagerness to reach the Dighton Rock.

This neighbourhood is a fair sample of the geology of New England. The prospect is hard and irregular; there is no deep alluvial soil that scarcely needs cultivation; but everywhere masses of granite are seen protruding above the surface in orchards and pasture-land; and not unfrequently the highway takes a bend to avoid some mass of stone as large as an ox-wagon or a small house. The uneven face of the country, broken up into little mounds and dells, presenting a constant change of scene, happened to attract my notice as I walked in company with a labourer, who, with his axe upon his shoulder, was going to his work in a neighbouring wood. I ventured to ask him if he could account for so curious a formation of the earth's surface, by any reasonable theory? He replied, with characteristic shrewdness and humour:—"Why, you see, when the earth began to settle itself down, and fix everything, it happened that there was a good deal too much surface for what was inside; and so, I guess, it was all *kinched up* as you see."

Although this was rather a bold and novel theory, quite unsupported by Lyell or De la Beche, yet I found, after further conversation with my companion, that he was by no means uninformed respecting the progressive changes which have prepared our globe for the use of man. And here it may be mentioned, as a proof of the efficiency of the American school system, especially in New England, that you will rarely find a native in these parts who cannot read and write

well; and the vacant stare and gaping mouth, which so surely bespeak an uncultivated mind, are never seen.

The village of Dighton is situated on the western bank of the river Taunton, which falls into Mount Hope Bay, above Rhode Island; and the object of my search lay upon a piece of land called Assouet Neck, across the river. Anxious to take advantage of the low tide, I applied to a ship's carpenter to learn if a boat could be had; but he gave me no hopes till night, as they were gone to the oyster-beds. My next inquiries were addressed to a youth, who seemed to have no particular engagement, but was sauntering about with his hands in his pockets (of course), and having his pantaloons packed in round the tops of his boots, with so little regard to style as to prove that he cared not what others might think of him, so that he secured his own comfort and convenience. I addressed the boy as follows:—

"My man" (a conciliatory compliment, by the way), "can you tell me how I may obtain a boat to cross the river?" Being a genuine Yankee, he replied by another question:—

"How many of you are there?"

"I am alone."

"Come from Boston?"

"No, from Taunton," I replied. "Can I hire a boat, do you think?"

"Guess not," said he; and in such a tone as implied that he was decidedly of that opinion.

Again disappointed, I resolved to wait awhile, in the hope that "something would turn up," as Micawber says. Presently, a tiny boat swiftly rounded a point of land, and approached me. Having hailed the rower, who readily complied with my wishes, I stepped on board a small schooner and descended from her chains into the skiff, which was barely six feet long. My companion was a cripple: his crutches lay beside him, and he had been amusing himself by making a few simple sketches, to be finished at home. Having pulled across the river to the desired spot and safely landed me, he positively refused any payment, nor could I persuade him to accept more than my hearty thanks and a few lead pencils. I was touched by his kindness, and considered how much the beauty of a sweet and gentle disposition may cause the imperfections of its frail tenement to be overlooked, and how strong are those feelings of sympathy for each other which are called forth by acts of usefulness gladly performed.

The Dighton Rock is an irregular mass of fine-grained granite, nine feet long by four and a half high, of which

there are many similar blocks lying in the stream and upon its banks. Its western face, which contains the inscription, is nearly flat and has an inclination of about sixty degrees. Although it is now more than half immersed by each returning tide, there is reason to believe that, at one time, it was high upon the shore,—as the river has gradually encroached upon the land here. The rock was an object of curiosity to the first settlers; and a description of it was forwarded to the Royal Society, by Dr. Cotton Mather, more than one hundred and sixty years ago, when the characters were plainer and more numerous,—as the action of ice and water have since obliterated much that appears in the earlier drawings. All that remains comprises a few symmetrical forms, supposed to represent ships, a few Roman numerals, and two human figures armed with bows, about twenty-four inches in height. Many of these markings are now an inch broad, and must have been cut in very deep, with much labour. At present they are so faint as to be seen with effect only when the setting sun casts an oblique ray upon the face of the rock.

As regards the authors of this monument, there are several theories. Some of the residents in the neighbourhood suppose it to be a record of hidden treasure, the work of the pirate Blackbeard, or Captain Kidd; and, indeed, the surrounding land has been carefully dug over, in hope of a discovery, but without success. Others regard it as an Indian sculpture, justifying the opinion by a reference to several native works in Narraganset Bay; although none of them bear so much evidence of design or skill as that upon the Dighton Rock. Catlin states that he saw painted figures, on buffalo robes, having somewhat in common with those just described. A third party believe this singular work to be a Runic inscription, executed by Northmen as early as the eleventh century. This subject was fully opened before the British Association, in 1848, by Professor Elton; and from his remarks, and Frost's *History of the United States*, we learn the following particulars:—

"Many ancient documents have been discovered at various times, by the historians of Iceland, which relate to voyages made by the inhabitants of that island in a westerly direction, and those have been published (1837), by the Royal Society of Antiquaries at Copenhagen, under the title *Antiquitates Americanæ sive scriptores septentrionales Rerum anti-Columbianarum in America;* the original Icelandic being accompanied by Danish and Latin translations. Here it is recorded that, in the year 986, Eric the Red sailed west from Iceland, discovered Greenland, and established

a colony there; and that soon after, his son, Biorne, having been carried from his course by foul weather, found land still further to the west and south (doubtless Labrador), where he made some stay. On returning to the new colony, his brother, Thorwald, resolved to adventure also, in the hope of reaching the land of which he had heard. Accordingly, he sailed for the same part of the coast where Biorne had previously wintered. Here he remained some time, trading with the people (who, from the description, are supposed to have been Esquimaux); and occasionally he met them in severe combats, in one of which he was mortally wounded by an arrow from the "skraalings." Finding that he was about to die, he requested that he might be buried with a cross at his head, and that the name of the place might be, for ever, *Krossanesse*. From this latter circumstance, we might be led to doubt the narrative, unless it can be shown that Christianity had been taught in Iceland previous to these events.

"Soon after this, in the year 1006, we find that Thorfinn, or Thorfinus, a chief of Iceland, whose ancestors had been among the most distinguished persons in Scotland, Ireland, Denmark, and Sweden, resolved still further to explore the western land, of which he had probably heard from his returning countrymen. Accordingly he made for the Greenland colony, and there fitted out an expedition comprising three ships, one hundred and forty-five persons, with live-stock, &c. In the account of this voyage we have a description of the peculiarities of the land in various parts where it was visited; and it is spoken of as 'the Slate Country,' 'the Wood Country,' and 'the Vine Country;' which terms are supposed to refer to Labrador, Nova Scotia, and Massachusetts, or Rhode Island. Further, in the account of 'Vinland,' where they settled at last, we have mention of a cape like the keel of a ship in form; and by reference to a map, it will be seen that Cape Cod bears a singular likeness to the prow of an ancient vessel. After some time, probably about two or three years, Thorfinn, with his wife, and a child born in the new country, returned to Iceland; and among those who claimed him, as an ancestor, are Torfæus, a learned historian, Professor Finn Magnussur, and the sculptor, Thorwaldsen."

We have now only to consider the probability of such voyages as those described, and add a few facts, which go far to confirm the truth of the old narrative. It is well known that, at the time referred to, success upon the ocean depended much more upon the daring than either the knowledge or skill of the navigators. It is certain that the Scandinavians were well acquainted with the navigation of the North Sea as early as the eighth and ninth centuries; and that they visited every part of the coast of England, Scotland, and Ireland, settling at last in Northumberland, and embracing Christianity in the reign of Alfred the Great. Again,

these hardy Norsemen were no common specimens of humanity, as we may infer from the trouble they gave our old Saxon rulers. Fearless and desperate pirates—they loved danger, and were inured to hardship; so that it is highly probable their adventures were often of the most reckless kind; and perhaps the "pluck" for which John Bull is somewhat distinguished may be traced to an early grafting upon his family tree of so tough a slip from Northern Europe.

Now for the collateral evidences. In the State of Rhode Island there stands a circular edifice of stone, which has no use, but, from its shape, is called "the mill." It was found and described by the first settlers; and although it has been repaired at various times since, it still bears evidence of great antiquity, and its lower part contains arches resembling those of Roman origin. Several antiquaries who have described it are of opinion that it had been erected by Europeans. *

Lastly, we must refer to certain human remains, which were discovered some time since at Fall River, only a few miles from Dighton; and which form the subject of Longfellow's well-known poem, "The Skeleton in Armour." A male skeleton was found entire, and with it a breastplate of metal, and a small chain of rude workmanship; but it is much to be regretted that all these were destroyed by a fire which broke out in the house where they were deposited.

These two relics are, we believe, all that has been found to indicate the presence of civilized man in these parts; and on that account we could not fairly attribute them to any aboriginal inhabitants,—such as those who built the pyramids and cities of Central America.

Of the navigators who visited the Western Continent, in the fifteenth century, we find that Sebastian Cabot landed on Greenland, and did not visit the American shore, although he had sight of it. After him, or about the same time, Columbus, in his third voyage (1498), proved the existence of that new world which had so long been to him a subject of the most earnest speculation; and in the next year, it was visited by Amerigo Vespucci, from whose name America is derived; but it is very doubtful whether either of these ever visited Massachusetts.

* A fuller description of this old mill will be found in *Longfellow's Poems*, as an introduction to "The Skeleton in Armour," to which work our readers are referred.

Here, then, we leave the subject of the first discovery of America; and while it is yet being debated,

"Decay's effacing fingers"

are gradually removing from the Dighton Rock those few strange characters which support the theory that the Norsemen were the first Europeans who set foot upon the western shores of the Atlantic Ocean.

W. H. R.

Graaff-Reinet.

THE WILD HUNTER'S LEGEND.

'Twas a morning of early June,
The wind lay cradled in leaves,
And the thrushes sang an harmonious tune
In the ivy upon the eaves.

The silver streams went breathing
A music among the grass,
And the mist of their hearts was wreathing
In many a windless mass.

With the unstirred green of their emerald sheen,
The forests were calmly sleeping,
While underneath,
With an unseen breath,
The air was slowly sweeping.

The velvet grass, like a slumbering sea,
Was flashing there continuously,
And the snake lay idly across the path,
Within the deep and massy glooms
Were beds of orange and crimson blooms.

The lily grew in the shade,
And the dew-sphere lay in its blossom;
Like a glowing diamond, laid
On a virgin's snowy bosom.

The heart of the crimson rose was blushing
To the kisses of the sun,
Like the cheek of a gentle maiden, flushing
After her heart is won.

A Hermit sate anear his cell,
And he wept and beat his breast;
A foaming torrent near him fell,—
It had no stay nor rest.

A snowy mountain close behind
Uplifted like a flame;
And thence, like a rushng stream of wind,
The flashing river came.

And still, as its snowy course did waue
Apast the Hermit's cell,
The tears ran down his cheeks like rain
And into the torrent fell.

The lark sprang up and did skyward soar,
Like the lightning's sudden dart;
And as she went, a song did pour
From the depths of her joyous heart.

And still the Hermit counted his beads,
And conned them o'er and o'er;
Like one that his devotion feeds
From his heart's abundant core.

His hair was neither white nor gray,
But black as black may be—
And a gloom upon his forehead lay,
Like a black cloud on the sea.

That forehead was high, and dark, and stern,
As though his heart to crime was lent;
And though his eye did earthward turn,
'Twas not that of a penitent.

A sound came rushing by
Like the sound of an iron hoof—
And the Hermit raised his glittering eye
And dashed the hot tears off.

The eagle left the snowy drift,
Which was his morning throne—
And high he flew, where the sunlight blew
His misty plumes upon;
And there he unfolded his heart in a scream
And fanned with his wings the morning beam.

A strong steed came careering
Down the snowy mountain,
And his mane in the wind was rearing
Like the mist and foam of a fountain.
He stopped anear the Hermit's cell,
Like a statue of stone, immovable.

And near the steed there stood
A red hound, with the blood
About his feet and about his jaws;
His teeth were long and sharp and white,
And left by his curling lip in sight;
His feet were fanged with claws.

He made no bay and he made no moan,
But close to the steed he sate him down,
And gazed in the Hermit's eye.
What want they there with him at prayer,
That thus they gaze on him—
That hound with fiery eye,—that steed
With misty mane and dim?

The Hermit shudders as he looks,
But never a tear sheds he;
Why—why is he so shaken—as
It were with agony?

He turneth to the fiery steed
With faltering step and slow—
As he would give his life to stay;
But cannot choose but go.

One spring, and he's on the horse's back—
Bridle and saddle none—
The hound has risen, and baying loud,
Adown the hill has gone.

Uprose the sun—the steed rushed on—
And his hoofs the ground uptore;
O'er stream and hill—through brake and dell,
And the hound bayed on before.

He came to a river broad and deep,
Its waves ran high, and its banks were steep,
But he made nor stop nor stay,
But plunged within—and through the din
Of the river, stretched away.

He passed o'er rifted rocks and bald—
From his feet the dust did rise—
Through forests as green as emerald,
As the tyrannous tempest flies.

All day—all day—he stretched away,
And the tramp of his foot was heard,
Like an earthquake's foot, when his fiery heart
In his adamant caves is stirred.

All day—all day—he stretched away,
Till the gentle moon uprist,
And her lustrous light, by the leave of night,
The dells and forests kissed.

And then he was heard careering up
A mountain's rocky side;
The snow was slumbering on its top,
And the streams that the giant poured from his cup
Flowed foaming far and wide.

All night he followed the red sleuth-hound
Over the glacier's breast;
And the crystal woof, that was made star-proof,
Was ground to snow by his iron hoof;
The eagle was crushed in his nest.

All day—all day—he stretched away,
And the tramp of his foot was heard,
Like an earthquake's foot, when his fiery heart
In his adamant caves is stirred.

Midnight—midnight—the steed hath stopped,
The moon hath stopped likewise,
Without a mist, without a cloud,
The stars have closed their eyes.

The red hound circles round the steed,
And bayeth long and loud—
The Hermit sits, as pale as death,
His eye is calm and proud.

A spectre comes athwart the moon;
Her light shines through his bones;
The cold wind rushes wildly by,
All eddying with groans.

The mist of its long, yellow hair
Is floating like a cloud.
What doth the skeleton without
A winding-sheet or shroud?

The red hound rushes on again;
Again the scent is won;
Bay after bay—bay after bay—
He and the steed stretch far away—
They chase the skeleton!

Day comes at last—the night is past,
But still the chase holds on;
On hound, and steed, and spectre, shine
The red rays of the sun.

Slow—slow as death, Time draws his breath;
'Tis a weary space to noon,
And high and high, the sun's red eye
Shines shadowy, like the moon.

A desert stretches every way,
And morning's red and evening's grey
Rest upon either edge;
The wind above it hath a voice
Like the sighing of the sedge.

In the midst of the desert waste
The hound and steed have stopped;
The hunted skeleton likewise
Upon the earth hath dropped.

The hound is lying by his side
With his red nostrils opened wide;
His eyes like torches glare;
The rider now hath left his steed,
And also sitteth there.

The wind is moaning in his hair,
But all beside is still;
He cannot choose but gaze upon
The grey bones of the skeleton;
Through them the breezes thrill.

All day the desert held them there,
Till the sun went down the sky,
And on the west, his lids of mist
Were folded o'er his eye.

Upon the west a shape appeared
Between him and the sun;
Nearer and nearer yet it drew,
Until an armed man it grew
A fiery steed upon.

"What dost thou here, with hound and steed,
Without a shield or spear?
And why dost watch that skeleton,
So mossy and so sere?

"What dost thou here?" "Alight and learn—
'Tis long to murk midnight;
Another sun will set, or ere
Thou seest thy lady bright.

"Alight; I have a tale to tell,
'Twill profit thee to hear—
'Twill vibrate in thy memory,
Till thou with age art sere."

The knight hath left his fiery steed
And sitting by his side,
Listeneth to the lonely tale
That from his lips doth glide.

"A chase was held—long years ago—
On a sunny day of June;
And a hundred noble youths did ride,
From morning till next noon.

"With wanton glee and revelry,
And shout and laugh they ran,
With armour bright and fiery steed;
The chase was an outlawed man!

"For many an hour we kept along—
Hound after hound I passed;
Man after man fell slowly back:
My hound and I held fast.

"All night led on my deep-mouthed hound,
And all night followed I;
The wayward moon went slowly down,
The white stars left the sky.

"Up rose the sun—my hound kept on—
My good steed failed me not;
And when the sun was in the south,
I reached this self-same spot.

"The outlawed man lay here. O God!
That I the sight did see;
His dead, dead eyes were opened wide,
And glared like fiends at me.

"His flesh was torn, his bones were bare;
All mangled was his head,
And by his side my good sleuth-hound
Lay with his jaws blood-red.

"I sate me by the dead man's side—
I had no power to go;
It even seemed that time was dead,
His feet went by so slow.

"My hound came fawning on my breast,
And kindly, too, I him caressed—
My tears did freely flow;
I thought he was mine only friend
Since God had turned my foe.

"Alas! that weary afternoon!
No sight nor sound came by,
Only the lonely wind, that through
The dead man's hair did sigh.

"The moon uprist, all hid in mist,
And up the heaven stole,
While from the dead man's eyes, her light
Did pierce into my soul.

"The cold wind swept along the plain,
And savoured of the sea—
It told me of my sunny home,
Lost like a dream to me.

"The corse's ashen lips unclosed,
His teeth shone by the moon—
And I did sit and shudder there,
Till near to night's mid-noon.

"Out of the chalice of the East
Dark foam began to rise—
Mass after mass, and broad and fast,
Red currents crossed the skies.

"And a moaning sound grew up afar,
Like a music in the air—
It circled round and round the dead,
And unseen wings were there.

"A star came down from heaven's roof,
And sate anear his head;
I knew it was his spirit, come
With me to watch the dead.

"And by its light—O fearful sight!
Two shadows I did see—
One sate on either side, and gazed
By turns on him and me.

"The shadow of their snowy hair
Fell softly on his face;

They were his mother and his sire
Come from their heavenly place,
To watch their dead—dead, mangled son—
The last of all their race.

"O God! those eyes did scorch my soul—
So calm and sad they were;
They were a conscience unto me—
And yet I could not stir.

"The clouds came falling o'er the moon,
Like to a rushing river—
The lightning forked streak in the East
From bank to bank did quiver.

"Peal after peal, the thunder spoke—
O joyful sound it was!
The hot tears from my heart it shook,
As 'twere an old friend's voice.

"That star still shone, in light or gloom,
Like the light of a dead man's eye—
Those white-haired shadows never stirred,
But still sate calmly by.

"Again I had the power to stir,
And I turned away mine eye;
Between me and the clouds I saw
A troop come hurrying by.

"On eager course, both man and horse,
Like the wind of a tempest hissed;
The lightning glittered through their shapes,
As it glitters through the mist.

"This shadowy army of the dead
Rushed by me like the wind;
Before—the thunder hounds did bay
And a tempest went behind.

"And, as they rushed by me, I knew
Each wan and ghastly face;
O God! how changed, since they and I
Began that fearful chase.

"The corse's spirit-star was quenched
As they came hurrying by,
But he uprose as though alive
And before the train did fly.

"My hound sprang forward in the chase
Of the dead, bay after bay—
My horse too joined the spectre-band,
And wildly dashed away.

"All night the storm did cry around
And the thunder-chariot roll,
But still the gray-haired shadow's voice
Was heard above the tempest noise.

"And every year, this self-same night,
That chase is held again—
That skeleton will rise and flee
Before the hunter train.

"And every year, the self-same day
That we began the race—
No matter where my weary heart
Has found a resting place—

"No matter where I dwell—my horse
And hound come back to me;
I cannot choose but mount—and thus
The horrid chase have we.

"And here—yea, even here—the chase
Fails never to be stopped—
And here, this very day, these bones,
All mouldering have dropped.

"I am a wretched lonely man—
No friend—no home—no God;
And, ceaselessly, through every clime,
My weary way have trod.
O God! I would that I could lay
My head beneath the sod.

"The white hair of those parents is
A shadow on my soul;
In dreams, *his* eyes come near and scorch
My worn heart, like a coal.

"I pray to heaven both night and day—
My tears like fountains start;
And yet methinks my prayer doth make
No music in my heart.

"O once I was a happy child,
And joy was ne'er away;
My heart was like a honey-bee
That hummeth all the day;
But now it is a wingless bird
That moans and moans for aye."

HISTORICAL SKETCHES OF SOUTH AFRICA.

No. 3.

THE DUTCH AT THE CAPE.

It would appear that the Cape was first visited by the Dutch about the year 1600, when the vessels of the Netherlands East India Company,—then in its infancy,—touched here on their passage. Though these ships frequented Table Bay, both on their outward and homeward bound voyages,

their captains do not seem to have deemed it worth taking possession of the country as a settlement, until moved by the repeated representations of Jan van Riebeek, the surgeon of the fleet which visited South Africa in 1650.

History mentions that, previously to this, the natives were attacked by Dutch traders, by whom they were murdered, and robbed of their cattle. That they afterwards retaliated, and on one occasion enticed the Dutch into the woods near St. Helena Bay, where the Hottentots collected in great numbers; and where firearms could not be used with effect. With their arrows and assagais the natives killed one, and wounded all of the party, who retired to an open field, where they attacked the enemy in turn, and dispersed them.

It also appears that these men were, about that time, in battle with the *Namaquas;* they fought for three days in a plain. The natives at last despairing of gaining a victory on account of the superiority of the Dutch firearms, they resorted to stratagem, and resisted, retreating until they entered a narrow pass between the mountains. The Dutch, not suspecting this movement, and eager for revenge, pursued the retiring party into the mountains, when the *Namaquas* climbed the rocks with facility, and from thence showered their arrows, assagais, and stones. The Dutch retired with difficulty, being much injured and bruised; they challenged them to meet again in the flats; but this request, of course, was ridiculed and refused by the natives. According to Dapper, the Dutch were previously well received by the *Namaquas.*

Returning again to Van Riebeek, it appears that he represented this country as rich and fit for cultivation; that the natives were tractable, and the bay safe and easy of entrance. He communicated much further information of the same import to the directors of the East India Company; and it was in consequence of these communications that, on the 14th of December, 1651, when Van Riebeek had been appointed commander of the fleet, he embarked with his family on board of the *Dromedary.* The captains of the two other ships *Heron* and *Good Hope,* came on board the *Dromedary* on the 20th, whilst at anchor in Texel; when, on opening the sealed despatches, it appeared that the captain of the last-mentioned vessel was appointed to act as commander of the new settlement during the absence of Van Riebeek. On the 23rd, they set sail. Little appears of interest in the journal of their voyage, until they came in sight of this southern point, which event happened on the 5th April, 1652.

Van Riebeek, on the afternoon of that day, wrote thus:—"Thank God! we saw the land of *Cabo de Bon Esperance* E.S.E. of us, about fifteen miles distant." The chief officer, who first saw the land, received a present of four Spanish reals in specie; the flags were hoisted; a gun was fired to give signal to the *Heron* and *Good Hope*, both at a distance to leeward; and during the night, these vessels came up to the *Dromedary*.

In the morning of the 6th of April, they were anxious to enter Table Bay, but it was deemed advisable, previously, to find whether any vessels of the enemy were in the roadstead, presuming that Prince Rupert was then looking out for the homeward-bound East Indian fleet. The narrative runs thus:—

"Fine weather, variable breezes; and as we could scarcely advance, and were near shore, we despatched with the sloop, the bookkeeper, Adam Voulsher, and second mate, Arend van Seevereu, towards the foot of Lion's Rump (Staart van Leeuwenberg), with orders, in rounding the point, to inspect whether there were any, and how many, vessels in Table Bay,—which could be well managed without exposing themselves in sight at any risk,—so that on receiving intelligence we might be prepared to act either for defence or offence. On returning, about two hours before evening, they reported that there were no ships at anchor, and we proceeded; and thank God! notwithstanding the calm, with a fair south breeze, which rose just after sunset, with the yacht the *Good Hope*, and anchored safely in Table Bay, opposite the Fresh River (this was the river running from Table Mountain through Table Valley), in five fathoms sandy bottom,—the captain of the *Heron*, Jan Hoogsaet, remaining outside."

In the evening of the 6th April, orders were given to Capt. David de Konink, to proceed in a boat with a crew and six armed soldiers, on shore, and to search for letters, and vegetables for refreshment, and to take the net with him to try whether a haul of fish could be caught, as the men on board had been suffering from severe illness during the voyage of nearly four months. On the 7th, De Konink went on shore. In the interval, the *Heron* arrived. De Konink returned soon after, and brought a tolerable quantity of fish and a box with letters, left by Jan van Freylingen, the commander of the homeward-bound fleet, and addressed to the Governor-General and Council of India, and other captains expected to touch at the Cape. From these letters it appeared that the fleet had horses on board, to be left here,* and that he could only obtain, during his stay, one cow and one sheep from the natives, though abundance were seen on

* In charge of an Ottentoo, who spoke English. This leads me to believe that our present hardy stock of Cape ponies originated from a Batavian breed.—P. B. B.

shore, and consequently had proceeded to St. Helena. The same evening, a party landed to search for a spot most suitable to build a fort. Two of the natives, one of whom spoke a little English, came on board. They were well treated with food and drink (den buik met eten en drinken dapper gevuld); but they could not supply cattle, being fishermen. The Saldaniers were expected with cattle; and this was confirmed by some persons who were saved from the wreck *Hærlem*.*

From this point, my sketch will be materially facilitated by extracts from *The Historical Account of the Formation and Progress of the European Colony at the Cape of Good Hope:* By the Revd. M. BORCHERDS, V.D.M., Minister of the Dutch Reformed Church at Stellenbosch, and Corresponding Member of the South African Institution. It was read at the Institution, April, 1830, and embraces the first two years of the existence of the settlement.

April, 1652. The occurrences which took place upon the arrival of Van Riebeek, in 1652, must necessarily commence the detail; and that the reader may become acquainted with the circumstances which first gave rise to the formation of a settlement at this Cape, I shall insert, *verbatim*, the "Resolution"† of the Council held on board of the principal vessel, immediately before the expedition sent out for that purpose landed:—

"Tuesday, 8th April, 1652.

"Having now by the grace of God, whose name be praised, safely arrived with the ships *Dromedary*, *Heron*, and *Good Hope*, in the roads of Table Bay, at *Cabo de Bon Esperance*, on the 6th and 7th inst., for the purpose of establishing a general rendezvous, according to the orders received from our superiors, the directors of the general chartered Dutch East India Company, and for the attainment of that object, to build a defensive fort or castle, in order, under its protection, to take possession of such lands as may be best suited for cultivation and cattle-breeding, for the refreshment of the Company's vessels, both home and outward-bound, and for such other services as the interests of the Company may require; for which purpose, the vessels aforementioned have been laden with materials, and the commanders thereof directed to use their utmost endeavours to carry this plan into effect;

"The Council, being assembled by the senior merchant Jan van Riebeek, having maturely deliberated and well considered the subject, have ordered and directed,—

"That, in the first place, the said Jan van Riebeek, accompanied by the commanders of the said ships, David de Konink, Johan Hoogsaet, and

* The *Hærlem* was a Dutch vessel, wrecked in Table Bay previous to Van Riebeek's arrival. Some of the cargo of that vessel has been lately raised by Mr. Adams, at Papendorp, with his diving apparatus; and coins, porcelain, and other articles have been obtained.—P. B. B.

† Records of Council, No. 1, 1652, 1673.

Symon Turver, shall land with some armed soldiers, to inspect and measure (as was provisionally done yesterday) a place fitted for the erection of a fort; and having fixed upon the same, shall immediately mark out the plan, so that no time may be lost in commencing the work, and the ships be enabled to pursue their voyage to Batavia with as little delay as possible.

"And that everything may be done with regularity, and quickly finished, it has been further resolved to leave no more than thirty-eight men in each of the ships *Dromedary* and *Heron*, and eleven in the yacht *Good Hope*,—making together eighty-three men, to land the materials and procure water, ballast, &c. These men shall also be employed, when convenient, in fishing, so that the persons on shore may not be taken from their work; it being at the same time understood, that the fish shall be divided amongst all, in such manner however as they may think proper.

"That fifty men of the *Dromedary*, eighty-nine of the *Heron*, and five of the *Good Hope*, amounting, with the cook and carpenters, to one hundredmen, exclusive of the officers, clerks, and surgeons, shall work on shore; and that the business may be carried on with despatch, the carpenters of the three ships shall land forthwith, and erect with all speed, within the boundaries of the fort, a convenient store and dwelling house, according to a plan to be furnished them.

"That with regard to food, a cook shall be sent on shore from each ship, and the people supplied twice a day; and each man shall be allowed three quarters of wine daily, so that no distinction be made, and dissatisfaction be prevented.

"Relative to the guards, it is understood that both day and night watches shall be equally divided between the soldiers and sailors, and include even the carpenters, without any exception whatever; so that no person may have reason to complain of having more duty to perform than another. For this purpose the sailors shall be supplied with eight muskets from the *Dromedary*, and six from the *Heron*, together with ponches and cutlasses; the soldiers being already armed.

"And, lastly, to maintain these and other resolutions which have been resolved upon, a placaat, of which the draft has been prepared, shall be published on board all the vessels, and afterwards affixed at the proper place on shore; which will appear from our placaat book of this date.

"Thus resolved and done on board the ship *Dromedary*, on the day and year above mentioned.

"(Signed) Jan van Riebeek (1652),
David de Koninк,
Jan Hoogsaet,
Symon Turver,
P. van Helm, Secretary."

It is therefore from the date of this resolution that our history actually commences. It appears, however, from the records and other documents, that the design of forming a settlement at this place had its rise from two memorials, the first of which, dated 26th June, 1649, was signed by Leendert Tansz and M. Proost; and the second by Jan van Riebeek in June, 1651.

Both these documents are too lengthy to be inserted here, although they contain several remarkable passages, and show

the real cause for establishing a fort and garden at this place; besides other circumstances connected with the history of that period.

The memorialists represented to the directors of the general chartered Dutch East India Company the benefits and advantages which their outward and homeward-bound vessels might derive from such an establishment, more particularly with regard to the health of the crews. They contain remarks on the climate, situation, shape, and appearance of Table Valley; and describe it as a waste plain, overrun with brushwood.

The first memorialists, who, being wrecked in the *Hœrlem*, East Indiaman, had spent several months here (according to Van Riebeek, a whole season), gave a favourable account of the character of the natives, and refuted the notion of their being cannibals; but Van Riebeek himself had a less favourable opinion. Both memorials, however, expressed hopes that, in addition to the temporal advantages which might arise from forming a settlement, the moral improvement of the aborigines (now known by the name of Hottentots) would be promoted by the diffusion of Christian principles.

The first memorial expresses itself on this subject as follows:—

"That the natives are capable of learning the Dutch language is sufficiently evident; for when the first mate, Jacob Claatz Haek, had been on shore for six or eight weeks, attending the sick, they were accustomed daily to fetch wood for culinary purposes, and could distinctly say *eerst hout halen dan eeten* (first fetch wood and then eat); they could repeat the names of most of the persons belonging to the *Hœrlem*, and could also speak a few words; so that there is no doubt they would learn to speak our language.

"By living upon good terms with them, it is probable that children may become useful servants; and if educated in the Christian faith, should the Almighty grant his blessings, as at Tayona and at Formosa, many souls may be brought to a knowledge of religion, and saved to God. Therefore, the formation of the said fort and garden will not only tend to the advantage of the East India Company, but, what is of more consequence, may also be the means of preserving many souls to the praise of God's most holy name, and to the propagation of His holy gospel, for which your undertakings throughout India will, without doubt, be more and more blessed."

And Van Riebeek, preferring the same request in 1651, expresses himself in the following words:—

"With regard to the assertion of Leendert Tansz, that the natives are capable of learning the Dutch language, it merits consideration as being in itself an advantage; and more so, as it affords hope for the propagation of our religion. In such case, if you could reconcile yourselves to the expense, a good minister would be of the greatest service, were it only for the further edification of your servants who might be established here," &c.

In consequence of these representations, the Company finally resolved upon the settlement. The instructions for the officers who were to proceed hither having been already drawn up on the 25th March, 1651, by the Board of XVII, a copy thereof, duly certified on the 12th December following by D. Pruys, advocate of the said Company, was accordingly delivered to them.

By these instructions, it was directed that the works should be commenced and carried on without opposition or hinderance to any of those nations in alliance or neutrality with their High Mightinesses the States-General, whose ships might touch here for refreshments, with the exception, however, of the Portuguese, who were then considered as enemies.

It may not be deemed irrelevant to remark that it was the constant practice of Van Riebeek, and appears to have formed a prominent feature in his character, never to enter upon business, at any meeting, without imploring the Divine blessing; and on the first page of the "Records of Council" we find the following prayer, which, with the other documents already quoted, will not be without interest to the reader:—

"O merciful and gracious God! our Heavenly Father, since it has pleased Thee to call us to the government of the affairs of the General Chartered East India Company at the Cape of Good Hope,—and as we have assembled in Council to advise and take such measures as may best tend to promote the interests of the Company, to maintain justice, and, if possible, to plant and propagate the true reformed Christian doctrine amongst those wild and savage people for the praise and honour of Thy holy name, and for the benefit of our employers; and being, without Thy gracious assistance, unable to effect these purposes,—we pray, O most merciful Father, that it may please Thee to preside at this assembly, and with Thy heavenly wisdom so to enlighten our hearts, that all perverse passions, misunderstandings, and other similar defects, may be removed from amongst us, our hearts cleansed from all human weakness, and our minds so composed, that we, in our deliberations, may not propose nor resolve any thing which will not tend to the praise and glory of Thy most holy name, and to the service of our Master, without considering in the least our own personal advantages or profit. These and such other blessings as may be necessary to promote the service entrusted to us, and for our eternal salvation, we most humbly pray and entreat in the name of Thy beloved Son, our Lord and Saviour, Jesus Christ, who has taught and commanded us to say:—Our Father, which art in Heaven, hallowed be Thy name, &c.

In this manner was the settlement commenced; and on the 19th April, Van Riebeek, in compliance with the resolution of the second Council held on board the *Dromedary* after the arrival at this place, informed the directors of these proceedings by the homeward-bound ship *Salamander*. The last meeting of Council on board the *Dromedary* took place on the 11th May, 1652. P. B. B.

OUR CEMETERIES.

A SAD theme hath it ever been to discourse upon, a burial-ground, with its silent inhabitants,—a noiseless city of the dead; but to man, whose common home it must sooner or later become, it is ever full of interest, and no one can assert that the contemplation is without profit,—nor to be handled without heart-felt reverence. Who that hath ever tried it—after a walk through a dusty town, deafened by its din, and sick of the sights which have met his eye, scenes of sin and misery, of poverty and squalor; tried it, after a mad grasp at some glittering bubble which has burst ere he had well seized it,—after a restless striving for an object, heavenly seeming in the distance, but how sadly changed upon closer acquaintance; tried it, in a word, after slaving and struggling, toiling and battling, without attaining his purpose, or reaping his reward, to turn his steps, and wander into a quiet church-yard, and hath not experienced how like balm it was to the wounded spirit to indulge in the soothing reflection—"There cometh an end to all toil and trouble."

Not a churchyard in the midst of a city where the stilness of the silent land is broken by the roar and raving, the shouting and the laughter from without. No, no, I mean some better and more natural burial-place, far away from towns and their noisy hum; some sweet enclosure on the dear sunny slope of a heath-clad hill, or in the flower-grown glade of a shady forest; of oak trees, whose gentle whisperings ever chant a requiem over the quiet inmates asleep beneath the mound; or of firs, whose melancholy moaning maketh most apt music over the graves.

You may think me dreaming; but a grave-yard, in a secluded and beautiful spot,—a spot where nature is decked in all her charms, and where no noise is heard, save the murmuring of the brook, and the soft sighing of the willow, and the song of birds, those winged minstrels ever ready to gush forth their forest music; a spot where none of the jarring discord grates upon the peaceful stilness from the world without, and where the perpetual clang of life's loud war does not penetrate; such a spot rather than the vaulted cemetery in the heart of the never-silent, ever-restless city, makes it more easy for us to believe of the departed that they are not dead, but sleep. Yes, there should be no tombs, and vaults, and houses for the dead. Why hinder dust from mingling with its kindred dust? Why shut out the glorious sun, the fair flowers, emblems of frail man and his mortality? What a sweet lesson is hidden from us by this custom of

locking the dead in mouldering darkness,—the lesson which the flowers teach, and so unmistakably teach, when blossoming in the grave. It is "defrauding earth of its predestined dues,—this cementing down of corpses with brick and stone."

Say, if you list, what matters it where the body is laid after the spirit has flown; dust to dust, and the soul returneth to God, who gave it. I shall answer you,—we are of the earth, earthy, and our thoughts cling with a fond affection, as if the spirit were still present with the clay, to the graves of our beloved, and our remembrance of the departed ever links itself to their last resting-place. And is it, then, a folly to care where and in what manner their remains are interred;—whether in the dank and cobwebbed vault, or under the green sward, with God's own sunshine and the flowers overhead.

Humanity has not changed one jot from the beginning. The same reverential feeling for the dead, the same fervid spirit of devotion, of which the history of antiquity contains such manifold and touching instances, is still extant in the world of to-day,—only it slumbers, and needeth a powerful awakening; not but that in many countries it is in full action. In France—godless France, if you like it—there is a grand lesson to be learnt, a glorious example to be followed. Go and visit that renowned cemetery of *Père la Chaise*, at Paris, which has earned the admiration of a thousand writers. See those graves, all buried in flowers, and strewn with garlands, ever renewed, and never allowed to fade. What tender care is taken of the dead by friends and relatives, who daily throng the place. No profane treading on the mounds, no spoliation of the plants and flowers. No one would think of plucking aught but a few buds from the grave, whose inmate he loved, to keep as a spell which might awaken tender recollections of byegone days, when sharing the joys of friendship with the dear departed. There is a model burial-place for you, which it would be a blessed thing to copy.* But there are, besides, those sequestered, unpretending village churchyards in all

* Our contributor has formed a much higher idea of the beauties of Père la Chaise than we have ever been able to get up in our highest enthusiasm. The graves, "all buried in flowers, and strewn with garlands," are dreadfully prosaic things at best. The garlands, consisting of tawdry wreaths of *immortelles*, for sale in any quantity in the neighbouring street of La Roquette, are anything but unfading; and the general impression left on the recollection of the candid visitor is, that the praises of Père la Chaise are immensely exaggerated; and that, notwithstanding the beauty of its situation, and the grand historical traditions associated with it, it is surpassed in other respects by the more modern English cemeteries of Highgate or Kensall Green.—Eds.

countries. Have they not formed the fruitful theme of many a beautiful poem; and hath not the country churchyard of England been immortalised by Gray, in his matchless Elegy? And who ever eulogises the city cemeteries? There is no attraction, no poetry about them. Unless the stilness is unbroken, and the peaceful nature of the burial-place undisturbed, the pleasure of contemplation is marred, the charm of communing with the past is dispelled; the soothing reflection, the calm thought, and the lesson it should teach—all lose their power.

And now, a few words anent the Gentile modes of interment,—the regard evinced by the "benighted heathen" and the Mahomedan for their dead. Their conduct teaches us many a lesson, and this is not one of the least profitable. Mark the North American Indian and the sallow follower of the False Prophet. See yon red father, bearing, with touching tenderness, the body of his dead child to the forest. How reverently he carries it, how gently he proceeds, how carefully he lays the precious burden down in the thickest of the wood. He bends towards him the supple branches of some evergreen trees, plaits them into a cradle, and places the child in it; and thus the little body is rocked in a perpetual green grave, whilst the bereaved savage returns to his wigwam with a light heart, and the comforting thought that his child rests all the sweeter for his tender care. Again, see here this devotee of the Crescent, at the time of the full moon in the Islam month of Ramadan. You need not go to Mecca, city of the prophet, to watch him. There are thousands of them in Cape Town. Look out towards the Lion's Hill on some evening of their festival days. See the hundreds of lights in their cemeteries, which stud the slopes. This is done yearly, as they say, to light the souls of the dead on their dark journey; and if you would take the trouble of visiting these burial-grounds you could see how very neat the mounds are kept,—many of them often scattered over with flowers, rare shells, cakes, and sometimes even money. The headstones are invariably anointed with a peculiar and fragrant oil. This is arrant superstition on the part of these "rude people," you will say; yet, in your heart, you must admire this tender cherishing of the departed, and admit that more civilized men fall far short in comparison with them.

Now come we to our Christian burying-grounds: and what shall I say of them? Many who read this, I am convinced, will hardly know how they look: some even do not know where they are. Well I can inform them they look dismal and gloomy enough. You cannot pass them without thinking

of ghosts, and skulls, and crossbones. They are a reproach to any town. There is a cemetery a little beyond the Lutheran Church, at the commencement of Somerset-road, a very extensive one, with two large rusty gates. It is ghastly enough to look in through the bars, but just enter with me. Tread cautiously, and mind you keep in the weed-grown footpath, or you may, of a sudden, find yourself unpleasantly rattling among a mass of decayed coffins, for there are numerous family vaults, or, more properly, *pits*, all over the ground. In these the coffins are heaped, and literally plastered down with flags, over which the heedless visitor tramps as on a pavement!

Not many months ago I was asked by J——— to accompany him, and pay a visit to the grave of a beloved and favourite sister. She had been a lovely girl, affectionate, and gentle, and kind; there was no one who knew her that did not love her,—yet death recked not her worth or beauty. In the fulness of youth, and health, and loveliness, he took her away from us. "She was cut off as a flower," and many were the eyes that wept, and the hearts that grieved at her departure. She was buried in this dreary place. My friend was absent when she died, and, as I had followed her funeral, I thought I could point out to him the spot where they laid her; but all our searching was in vain. No name was visible to identify the vault, weeds and grass had grown over all, and after a long and fruitless wandering, at great risk of slipping into the many gaps which time and neglect had made in these pits, we had to abandon our efforts, and wend our way back —sad, and full of sorrow. Not thus, dear G———, would'st thou have wished to be hidden from us; not in so dank and dark a place should they have shut thee in.

I repeat, let there be no such abominations,—into which the dead are huddled, and straightway are forgotten. The thought of leaving the remains in such horrid pits is sickening, and we shudder to visit a spot where nothing is to be seen; but, oh, a vast deal imagined! Not such a grave-yard had Tennyson in mind when he chanted his dirge:

> "Now is done thy long day's work;
> Fold thy palms across thy heart,
> Fold thine arms, turn to thy rest.
> Let them rave.
> Shadows of the silver birk,
> Sweep the green that folds thy grave.
>
> * * * * *
>
> Light and shadow ever wander
> O'er the green that folds thy grave."

Nor Emily Bronte, when she sung:

> "Blow, west wind, by the lonely mound,
> And murmur summer streams;
> There is no need of other sound
> To soothe my ladie's dreams."

And whilst on this subject, I may be permitted a few remarks on the manner in which they bury the dead in this cemetery, which belongs to the Dutch Reformed Church. There is no funeral service read. Occasionally, one of the clergymen delivers an address, when the person to be interred was well known to him; but, in most cases, the body is just deposited in the vault, or put in the ground, without a word, excepting that the sexton mutters, in a cold, formal manner, his "thanks to the gentlemen and friends for the last honour done to the deceased!" Now, ought this to be longer so,—this thoughtless burial of the human dead,—this careless casting away of the body? Surely not. Man must be allowed to be a little better than a dog,—somewhat nobler than a horse![*]

Next we come to the Roman Catholic cemetery, about which I shall say no more than that, in winter, it is overgrown with very high and luxuriant grass, which, in the summer, is burnt down, destroying, in its rage, all the wooden crosses and tomb-slabs of the season. A little lower down, and to the left, close to the beach, is the best-looking and neatest of our burial-grounds. It belongs to the Lutherans; and was laid out by the late lamented Baron von Ludwig, with his usual botanic taste. The dark-toned ever-green trees, in which it is nearly buried, are in admirable keeping with the solemnity of the place. Perhaps there is too much shade, but that is a fault on the right side. Only there is here, also, too great a preponderance of vaults, and we sadly miss the "flowing mound," which gives the grave-yard its peculiar and irresistible charm. The Lutherans have also no service for the dead.

Then we have the English cemetery, and two other burial-grounds for coloured and poor people. These, with the Lutheran, we confess, are the best and most tolerable of our Christian cemeteries. There is, however, room for much improvement. The trees and shrubs, and creeping flowers, are not kept in proper trim; and the weeds are allowed to tangle about the tombstones, accumulating dust and spiders, and obliterating the inscriptions. Our village churchyards, as far as I have seen them, are in the most forlorn, decayed,

[*] I crave Mr. Tennyson's pardon for appropriating his idea in "Locksley Hall" to serve my purpose.

and dilapidated state. They might all have the simple, yet graphic epitaph inscribed on their rusty gates—"Crumbling through neglect!" But, unless there is shown a more tender and affectionate solicitude for the relics of departed relatives and friends; unless frequent pilgrimages are made to their graves, and the labour of love undertaken by those who cherish the memory of the dead, there will be the same deplorable state of things, and little or no improvement. The work should not be left to the poor grave-digger, who, God knows, has enough on his hands to make our last beds, and cover us, without tending the resting-places of those who were strangers to him.

"Yea, it is the poetry of death, an orphan's gladdening Hadës,
To care, with mindful love, for all so dear—and dead."

And, if ever an injunction was to be followed up, it is certainly this,—of "doing unto others as we would be done by." He must be a strong-minded man who is careless how his friends would regard his remains after death. He must be unnatural—he must be hard-hearted; for

"Nature speaks within the human bosom,
And, spite of reason, bids it look beyond
This narrow verge of being, and provide
A decent residence for its clayey shell,
Endear'd to it by time."

A spot such as I love to contemplate for my last resting place I have now in my memory. Far away from the town, yet near enough to the sea, whose soothing, mellowed murmurs fall like a lullaby upon the air. A cluster of ever-green fir trees and shadowy cypresses grows around it, sighing soft sadness at every whisper of the breeze. It contains about a dozen graves. I have visited it often, and watched it with a sombre pleasure;—in broad daylight, when the sun shone bright, and nought was heard but the drowsy chirping of insects on the wing; at sunset, when all the heavens rung with the evening song of birds, and a radiant glow was cast over it by a flood of glory from the west; and, lastly, I have watched it on moonlight evenings, when it had the potent power of allaying the stirrings of a soul fretted and worried by the din and strife of the world afar; and the spirit of the place seemed to answer my "*imploro pacem!*" with the promise—"There cometh an end to all toil and trouble." Of such a spot, at such a time, beautifully sayeth the poet:

"How sleep the dead in yon churchyard,
Where chequering moonbeams purely fall?
How sleep the dead beneath the sward?
Calmly, softly, sweetly all!

In mute companionship they lie,—
No hearts that ache, no eyes that weep!
Pain, sickness, trouble, come not nigh
The beds of those that yonder sleep.

The stormy sea of human life,
With all its surges, roars around;
Their barrier wall repels its strife—
No wave breaks o'er their hallow'd ground.

Around the summer sun may scorch—
The dead feel not the sultry ray;
Winter may howl in spire and porch—
The dead are reckless of his sway.

Thus sleep the dead in yon churchyard,
Where chequering moonbeams purely fall;
Thus sleep the dead beneath the sward—
Calmly, softly, sweetly all!" S.

AN EXCITING EVENT IN THE CITY OF GABBLETONGUE.

Be it remembered that the following tale has no date and no locality, but as blanks look ugly and spoil the reading we will invent both dates and places.

The town or city of Gabbletongue was in a state of commotion. Something extraordinary had occurred, and the voices of the citizens were noisy thereat. But what had happened? Had a murder been committed? Yes, but no one cared much about that. Newspapers published leading articles about it, certainly, to prove that the authorities ought to have found out the murderer, but had not done so, and were therefore utterly imbecile, and ought to be superseded or abolished; but then, newspaper editors never write on subjects that anybody cares about, and so all that they said on the matter of the murder went for nothing. There had been startling news, too, of a great empire being threatened with destruction; of semi-barbarism again triumphing over civilisation; of rapine and murder in their most hideous shapes; of wholesale slaughter through treachery, and wholesale vengeance through the gallows and the rifle. The city of Gabbletongue said that all this was very shocking, and shook its head, and volunteered to defend itself against the attacks of——nobody (for nobody had the slightest intention of attacking it), so that all the red coats and blue jackets within its precincts might be shipped off to the scene

of slaughter. And yet, after all, it was not this that excited the commotion in Gabbletongue. There had been a ball or two; and these being rare in Gabbletongue, had excited a due amount of conversation among the idler of these citizens. There had been races with bad horses, worse jockeys, and still worse company. There had been theatrical entertainments—entertaining in more senses than one. There had been a suicide or two—in short there had been all sorts of domestic and public events, calculated to excite surprise, indignation, horror, pain, fear, enthusiasm,—and yet all had failed to raise much real commotion in Gabbletongue, till that vast and intelligent city was roused from its dulness, its phlegm, its selfishness, or its stupidity, by——a runaway marriage.

The citizens of Gabbletongue have a habit of hanging about at street corners, with their hands in their pockets, like little boys looking out for horses to hold; but the worthy citizens are only looking out for button-holes to hold,—that is to say, waiting for any luckless wight on whom they may pounce, and condemn him to half an hour's tittle-tattle. A busy man will always, if he be prudent, make a wide *detour* when he turns from one street into another, and thus avoid the inevitable collision that awaits him at the corner. Six or eight of these groups of gossips may be seen at any hour of the day, from nine till five o'clock,—getting, indeed, alarmingly large towards the latter hour. We despair of giving any clear idea of the nature and style of the conversation carried on by these conclaves, but we will make the attempt.

Robinson meets Smith.

"Ah! well; how are you?" says Smith.

"Well, anything new?" says Robinson, and each one makes his sentence last as long as possible, having plenty of time, but few words, at command.

"Nothing that I know of," says Robinson, after a pause.

Now, it might be reasonably supposed that Smith having nothing to tell Robinson, and Robinson having nothing to tell Smith, they would be content to exchange nods and pass on again. But they do nothing of the kind. Smith puts his hands very deliberately into his pockets, and looks up the street and then down the street. Robinson, with equal deliberation, goes through precisely the same process. Then they both look at the sky, and then at each other, and then one says:

"Well."

And the other replies, "Well."

They don't laugh when they have said this; they don't see anything in the least degree ridiculous in it. They wait till Tomkins comes up. Tomkins stops, and precisely the same process is gone through by Tomkins, and Robinson, and Smith, as the last two had previously indulged in. A fourth arrives, Brown: the looks of Robinson, Smith, and Tomkins brighten as they behold him; for that fellow Brown has always got something new to tell them.

"Well, Brown, anything new?"

"Nothing particular; I suppose you've heard about poor Stiggins?"

"No; what?" ask three voices.

"Fell off his horse, and hurt his nose; obliged to have it plastered with diachylon. I saw the very chemist that put it on for him."

"Really—ah—well—why, I saw him yesterday looking quite well," cry the voices.

"Very likely—accident was this morning, and I believe a fall from your horse never shows any premonitory symptoms," replies Brown, and away he walks, as happy as a man can be who thinks he has just said a good thing.

Robinson, Smith, and Tomkins take a long while to find out the joke, and when they have discovered it, they break into short spasmodic laughs for a moment, and then relapse into their wonted placidity or imbecility.

But all is changed to-day. Robinson, Smith, and Tomkins are as lively as young hippopotami—heavily sportive. They have got a real bit of news, and long for some one who has not heard it that they may retail it; and when they miss that luxury, they talk it over again and again among themselves. As for Brown, he says so many capital things to-day, that he almost determines to give up punjums and baftas, and go to London, to devote himself entirely to writing papers for *Punch*.

"Well, it's a queer affair, isn't it?" remarks Robinson.

"I suppose you've heard all about it?" asks Smith.

"Everybody seems to know it," chimes in Tomkins.

"What did *you* hear?" asks Robinson; "because there are a great many incorrect versions about, and *I* happen to know——."

"So do I," cries Smith, "on the very best authority."

"So do I," says Tomkins; "I heard it from a man that saw them."

"Saw them, eh?" cries Robinson, a little bit surprised.

"Really?" says Smith, also slightly astonished.

"Yes—he saw them,"—answers Tomkins: "they were

walking arm-in-arm all alone about five yesterday evening, and he thought to himself——"

"But, man!" exclaims Robinson with impatience, "it only came off this morning."

"Well, I know; but you see, when my friend saw them walking alone yesterday afternoon, he thought to himself, 'I shouldn't wonder if that's a match before long,'—and sure enough it is, you see. Strange coincidence, wasn't it?"

"Ah!" says Robinson, not greatly struck with it.

"Hum!" echoes Smith, disappointed at the finish.

"As for that, I've seen them together myself," says Robinson.

"So have I," says Smith.

"Strange that they went to the Wesleyan parson, wasn't it?" says Tomkins.

"My dear fellow, you've got hold of the wrong story altogether," says Robinson, secretly delighted at that fact: "they were married in the church."

"I assure you that you are both wrong," cries Smith: "they were only married before the magistrate—there was no religious ceremony at all."

"You don't mean that?"

"I do—I know it—it came from a most intimate friend of *his*."

"What a devil of a fellow he must be!" says Robinson.

"Confounded shame!" adds Tomkins. "Holloa, here's Brown!"

Brown approaches.

"Well, how are you, my pigeons? Heard the news, of course. What a start, eh?"

"What did *you* hear, Brown?" asks Tomkins. "Was it in a chapel or a church, or before the magistrate?"

"In the church to be sure, my dear fellows. Why, don't you know that he had a brougham and four in the road, near the house, at half-past six. She slipped out by the window in a gingham wrapper—he lifted her right over a prickly-pear hedge—both jumped into the carriage, and away they went at full gallop to Peter's Town, and were turned off. Back they came again—rushed into the breakfast room, and cried out, we're married. Mamma shrieked, and went off in an apoplectic fit——"

"What, dead?" exclaim his auditors in horror.

"Not a bit of it—it wasn't apoplexy, I suppose, but some confounded thing or another. Papa swore, and flung a heavy chair at the bridegroom's head——"

"It must have spoilt his beauty and his precious voice," says Robinson.

"No—it missed him, broke its own legs and two teacups—that's all. Sisters cried, and weren't a bit envious, of course—and——"

"Well?"

"Where am I? oh—ah—that's all: they got back into the brougham, and drove off to spend the honeymoon. Good bye, I'm in a hurry."

And Brown hurried off to give a new version of the story to some one else.

The groups increase: the great event draws conclaves together, even in the middle of the streets as well as at the corners. About five-and-thirty different accounts are afloat. One old gentleman is a great authority to-day, for he has actually seen the bridegroom that very morning since the interesting event came off, and has conversed with a relative of the bride. More than that, he has the authority of the relation for declaring that it is positively true, though he cannot take upon himself to state whether it was in a church, or a chapel, or before a magistrate. He does not believe the brougham-and-four story, because he saw the gentleman outside a 'bus, and the lady was undoubtedly inside it.

"By jove! what a joke!"

Here was better fun than ever. Brown was in ecstasies, and rushed all over the place to give this last most entertaining and most veracious account. No one could dispute *that*, at all events.

At last there is more excitement than ever in the assembled groups. Robinson, Smith, and Tomkins actually take their hands out of their pockets, leave off saying "well," and staring up and down the street, and are fixedly gazing in one direction, and at one individual. It is the bridegroom.

"Holloa!" cries Brown, panting as he rushes by—"it's all a sell—he's not married at all."

"What! eh! the deuce!" &c. &c.

It was actually true. The man was not a bridegroom at all. There had been no "runaway match,"—and Gabbletongue was, in vulgar parlance, regularly "sold."

COMMERCIAL REVIEW.

We have been disappointed in the amount of business done during the month of September, usually very brisk with the commencement of the spring trade; and we are at a loss to conceive the cause of the dulness, especially as the transactions of all preceding months during the present year have far exceeded those of corresponding periods of former years. If, however, the sale of goods has been limited, ample amends have been made by the activity of those interested in shipping. Simon's Bay has been especially favoured with men-of-war of large size, and steamers conveying troops to the East Indies and China,—the disbursements for which have been of considerable advantage to the town and its neighbourhood. In anticipation of the arrival of these steamers, the Admiralty, with a prudent foresight, had entered into large contracts for the supply of fuel to H. M. Dockyard, and large quantities have already been received. In Table Bay, the arrival of merchant shipping has not been great, the season for homeward-bound vessels being still early. A fine American war-steamer, the *Minnesota*, has been displaying her magnificent proportions in our waters, and has received the meed of admiration she was justly entitled to, as the finest specimen of naval architecture of her size which has ever appeared in Table Bay.

By the *Scotland*, intelligence has been received of the termination of the postal contract between Great Britain and this colony, hitherto carried on by the steamers of Mr. W. S. Lindsay's line. Tenders had been called for, for the conveyance of the mails to this port only, and were to be sent in on the 28th August; but it appeared improbable, in consequence of the demand for steamers at the time, that any offers would be made to H. M. Government. We are therefore likely to realize the fact that communication by steam with England, carried on even with the passages of the line which has just terminated, is better than none at all, and that the colony has proved itself somewhat ungrateful in totally condemning a line for which they have paid nothing. We should not be surprised to learn that it has pecuniarily benefited by the larger amount of postage received on inward and outward letters since the line was established. There is a prospect of an arrangement being made here, and a company organized, for the purpose of carrying out a line, having its terminus at Cape Town or Port Elizabeth. The plan appears to us to be very feasible, and we heartily wish it success, which it is sure to meet with if properly supported by the colonists. It is proposed to enter into a contract with the local Government, and to be subsidized by it for the delivery of a mail both ways in forty days for each voyage, to continue the line on to Algoa Bay, for the accommodation of passengers embarking, and produce shipped there, as well as for the disembarkation of passengers and merchandize booked through from England.

In imported articles there has existed a demand for Mauritius sugar, which may be quoted @ from 40s. to 46s. ℔ 100lbs.; Natal at higher rates. The new crop from the island commenced at high rates, and a considerable portion is said to have been already disposed of,—the Australians being the principal purchasers. Rice has changed hands at 23s. ℔ bag for brown, and 26s. to 27s. for white. The demand for the former is increasing, but the supply is limited, and may almost be said to have ceased for the present season. Caper teas stationary, at about 32s. ℔ 10-catty box, with but little demand at present; as, however, stocks are low in this article, and the China difficulty seems in *statu quo*, it would appear probable that an advance will ultimately take place. Rio coffee, which is now substituted largely for tea, has however been somewhat dull of sale, and has, in some instances, been disposed of at below the cost in this market: 72s. may be considered as the ordinary selling rate. The consumption of coals in Table Bay has been limited, but one steamer having coaled from private sources; the *Minnesota* received her supply from the States, whilst three transports were furnished by H. M. Commissariat. Staple goods (of which the importations have been large) have advanced very much in the manufacturing districts of England, and a proportionate rise should be maintained on this side. It is rather a characteristic of this market that the prices at home do not always affect them here, which is attributable in some measure to the fluctuating stocks which are kept up, for it often happens that importers consider it unwise to advance their prices on goods purchased at low rates to those which are at the moment higher, for fear of overstopping their market, and enabling goods laid in on more favourable terms to compete with them. It is well known to them, that directly there is an advance on even staple goods, the shopkeepers purchase cautiously, and only to supply their current demands. American flour is sold at 42s. to 45s. ℔ barrel,—a price which, we opine, leaves little margin for profit, unless in the way of freight. From other places, the importation of bread-stuffs is not remunerative. A cargo or two ordered from South Australia at certain limits remain unexecuted, and the vessels sent to carry out the operation are compelled to go further a-field.

In our articles of export there is but little change, although the advices of their sale in various parts of the world are very encouraging. Commencing with our staple, wool, the advance of fully 1d. to 1½d. ℔ lb. in the July sales, at a time when it was anticipated that the serious mutinies in the East would have depressed prices, proves that the demand is greater than the supply, for speculation could in no way have interfered at such a period. It is confidently asserted that the next sales will see equally good prices realized. Our colonial wines are obtaining good rates in England, and are likely to advance, owing to the apparent failure of the Continental vineyards, and the necessarily reduced

quantity imported from all places. It was anticipated in the London market that the importations of Cape wine would be very considerable, but the high price of fustage (as adverted to in a former number of this periodical) fortunately, as it now appears, prevented too great a quantity being thrown into the market, at a time when inquiry was first made for Cape wines. Should the misfortunes of the Continental vineyards continue for any time (and our own be exempt from disease), we may look forward to a new era in our agricultural history; but both farmers and exporters should learn to deserve the approval of the English public by a careful cultivation of the grape, and pressing and preparing its juice. Save the Continent, no other country can compete with us for years to come. We are glad to find that a large breadth of land has this season been planted with vines in the Paarl and Stellenbosch districts, as well as in the famed localities nearer to this city. In some instances 30,000 to 40,000 sticks have been planted on one farm. There must be a reliance in this on the plans of the Government for Immigration during the next four years, for the want of labour has always been the cry amongst farmers when asked why they did not cultivate more extensively. Dried fruits are selling well in the Australian colonies, and have been operated on to some extent. At Mauritius, dried fish, guano, horses, and oats have realized well, and left a good margin to speculators. Hides appear to have advanced at home, having suffered a depression for some weeks.

Exchange may be quoted at two to three per cent. discount for ninety days' sight bills on England. Money has been tight during the entire month, but is now rather easier, and may be expected to be obtained with greater facility. The colonial rate of interest, six per cent., never varies, for although it is alleged that there exists no law to prevent a higher rate of interest being demanded, an uneasiness prevails lest this allegation should be unfounded. The fact, however, remains that this is one of the few places in the world where money is not a commodity to be used in such manner as contracting parties may agree to. The enlightened people of England have evinced prosperity even under a pressure of seven and a half per cent. interest for money, and it is to be hoped that our legislature will, next session, frame an enactment which shall give the power, if it do not now exist, of making money a marketable commodity.

MONTHLY REPORT OF THE SOUTH AFRICAN MUSEUM.

My Report on the Museum for this month is, I am happy to say, more satisfactory than the last. We have received some valuable additions, and several alterations have been made, or are in progress, which will considerably improve the appearance of the collection.

Again, my able and energetic correspondent, Mr. Arthur Jackson, of Nels Poort, is foremost in the ranks of our contributors. A magnificent Cheeta *(Felis Jubata)*, a fine Najoor or Rietbok *(Eleotragus Reduncus)*, and a wild Goose *(Berg Gans)*, are among the best of his donations this month. Mr. R. Smith, of the Central Road Board Department, has contributed several beautiful Snakes; Mr. Peter Borcherds has brought in several varieties of birds' eggs, new to us; while Mr. W. H. Auret has sent an interesting series of Bushman bows and arrows, the latter tipped with glass, and a curious nest of, as he states, an ant. From the Rev. R. Moffat, of Kuruman, and his son Mr. R. Moffat, a large box has come to hand, containing weapons, utensils, ornaments, &c., of the Bechuanas, skins of birds and animals, &c. A box of minerals has been received from Mrs. Unna, and sent from Germany.

I miss my friend Dr. Graff, of Somerset (West), from among the contributors this month. I presume we shall hear from him again.

While thanking our correspondents for their donations, I must not omit to mention the kindness of Messrs. Munnik, Stegmann, and other mail contractors, whose continued attention in forwarding parcels, &c., deserve our best thanks.

I am happy to be able to report that, at last, the Kafir figures presented long ago by Mr. van Reenen are dressed. These figures have for months reminded one of the truth of the fable of the farmer and his sons. Several friends *promised* to dress them for me; but like the farmer's wheat field, the labour still remained undone. I did not like to attempt the thing myself, as I had never seen these races in their proper costume; and I was unwilling to make egregious mistakes. The advent of the Kafirs from the Frontier having put the opportunity into my hand, in eight and forty hours they were dressed. Some will receive a little alteration,—M. Arbousset, the French missionary, having engaged to dress two of them as Corannas.

The *Reptilia* have undergone a complete revision and classification at the hands of my friend, the Count de Castelnau. We possess fifty-nine species of snakes, and seventy-two of lizards. As soon as the copper plate ordered for the labels is finished, they will be all named and arranged. Mr. Wyley has commenced the arrangement of the *Ores* from the various mines visited by him in Namaqualand; these will be accompanied by the original drawings which accompanied his report to Government, and be kept as a reference for the future.

All the *Shells* added by my cruise in H.M.S. *Castor* are now incorporated, and many of the *Birds* are also mounted and placed within temporary quarters; I say temporary, because our glass cases are now so full that we are obliged to *cram* in all kinds of genera and families into the same place. The Trustees are unwilling to order the construction of new cases until the building which is to be our final home is erected. The cases will then be built up inside the room, and made to harmonise with the architecture.

The illustration of another interesting branch of Zoology has been commenced. I allude to the habitations of animals, principally shown in the contrivances made for the shelter of their eggs and young. I would earnestly beg our friends and well-wishers to assist us in this. Our collection is small, *very small*, at present, but it is a beginning,—and a *beginning* everything must have. I know the Museum wants many things that are, as our friends continually tell us, "so common that I did not think you would care to have it." I wish they would remember that, shut up as I am in town, I cannot get out to collect myself. I never lose an opportunity, but many things can only be obtained during certain seasons.

The Insect cabinet has received its beautiful tenants, and now graces the Museum with its presence. It may be inspected by applying to the attendant.

I have determined to place it in position, although the contents are not yet properly displayed. This will be a work of time, as the relaxing and resetting of such a number of insects will occupy my evenings for some months to come. I shall remove drawer by drawer, as required, so as still to leave the majority for the inspection of visitors.

Lastly, I have the pleasure of informing the subscribers and the public that the Lords of the Committee of Privy Council on Education have caused a collection of British fossil organic remains to be made for us, under the direction of Sir R. Murchison, from the specimens collected by the Geological Surveyor. His Excellency Sir G. Grey received a despatch from the Secretary of State, announcing their departure by the last mail-steamer. In consequence, however, of the withdrawal of the contract from Mr. W. S. Lindsay, it is presumed the box has been detained in England. This collection will be a valuable addition to our fossils, which are but few in number, though, through the kindness of Mr. Syme, in Longmarket-street, and Mr. Orpen, on the frontier, we may soon expect a good series from the Bechuana country. Mr. Fairbridge having offered, through the firstnamed gentleman, a handsome pecuniary reward for a perfect specimen of the Dicynodon, a systematic course of excavation was set on foot, and the labour rewarded by the discovery of a fine specimen, and, as reported, "a wagon-load of other remains," which are now on their way to Cape Town.

E. L. Layard, Curator.

S. A. Museum, September 30, 1857.

NOTES AND QUERIES.

NOTES.

Hottentot Vocabulary in 1664.—A despatch from the second Dutch Governor of the Cape, Zacharias Wagenaar, to the Chamber of XVII.

has the following reference to a Hottentot vocabulary sent to Holland on the 21st November, 1664:—

"In the year 1659, there came hither, as a volunteer, a certain student, a native of Brunswick, named Georgius Frederickus Wreede, who, having from the date of his arrival here, had a great desire to acquire the language of these Hottentoos, has diligently studied the same, and has now advanced so far, that he has not only occasionally done good service to the Company with interpretation, but has now succeeded in committing to paper a Vocabulary or Compendium, as he calls it, of the Dutch and Hottentoo languages, which latter he for the present expresses by means of Greek characters,—which work he now reverently dedicates to your Honours, trusting that should your Honours consider it good and useful, you will be pleased to have it printed, and to send some copies hither."

"A vocabulary of the Hottentoo language," appears likewise in the list of enclosures attached to this despatch.

In a despatch of the Chamber of XVII, bearing date 29th April, 1664, there is this passage:—"We have received the Compendium or Vocabulary of the Hottentoo language, prepared by Georgius Fredericus Wreden, and on your suggestion have resolved to cause it to be printed *(goetgevonden te laten drucken)*,* and shall send you some copies with these or the following ships:—the said Wreden being for this, and in order the further to incite and encourage him in his zeal, presented with a sum of 100 Rixdollars to be paid him either in money or in account, as we hereby authorise you to do, and likewise, if he deserve it, to advance him to the post of sergeant or assistant, as may most accord with his inclination or ability; and this, notwithstanding that we are of opinion that it will be far more serviceable to the Company that the natives there should learn our language, than we theirs, which object you will accordingly hold in view."

Mr. Moodie, while engaged in the compilation of the "Record," could find no trace of the printed copies of the vocabulary promised to be sent. Further examination lately made, has not been more successful.

The result of a careful search for Wrede's Compendium in Holland, instituted at the request of His Excellency the Governor, Sir George Grey, seems to be that the vocabulary never was printed, notwithstanding the resolution taken to that effect.

The following correspondence on the subject has been transmitted to His Excellency by Mr. Secretary Labouchere:—

Downing-street, 26th July, 1857.

Governor Sir G. Grey, &c. &c. &c.

Sir,—With reference to your despatch No. 2, of 7th January last, stating your wish to procure from the Netherland Government a copy,

* Mr. Moodie has (p. 279)—"We have had it printed," which is erroneous.

or copies, of a vocabulary of the Dutch and Hottentot languages printed in Holland in 1664, and also a copy of the original vocabulary sent home by Governor Wagenaar, I transmit to you a copy of a letter with its enclosures from the Foreign Office on the subject.—I have, &c.,

(Signed) H. Labouchere.

Foreign Office, July 27, 1857.

H. Merivale, Esq., &c. &c. &c.

Sir,—With reference to your letter of the 20th March, I am directed by the Earl of Clarendon to transmit to you, to be laid before Mr. Secretary Labouchere, copy of a despatch and its enclosures from Her Majesty's Chargé d'Affaires at the Hague, from which it appears that the archives of the Dutch East India Company have been in vain searched for the Hottentot vocabulary which the Governor of the Cape was anxious to obtain.—I am, &c.,

(Signed) Shelbourne.

The Hague, July 3, 1857.

My Lord,—In conformity with your Lordship's instructions conveyed to Sir Abercromby in your Despatch No. 38, of March 31st last, an application was made to His Excellency the Minister of Foreign Affairs, to furnish Her Majesty's Government with copies of a Hottentot vocabulary supposed to exist in the archives of the Dutch East Indian Company.

His Excellency M. Gevers d'Endegeest has caused the necessary searches to be made, but hitherto they have proved unavailing, so that the Keeper of the National Records, M. Bakhuisen van den Brink, is led to conclude that no steps were, in fact, taken to print the vocabulary in question; no copy of which is now to be found among the papers and despatches belonging to the East India Company.

I have the honour to enclose, for your Lordship's information, a copy of M. Gevers d'Endegeest's note to me with its enclosures, acquainting me with the result of the diligent searches made in order to comply with the request conferred on behalf of Her Majesty's Government.—I have, &c., (Signed) W. R. Ward.

La Haye, le 10 Juillet, 1857.

M. Ward, &c. &c. &c.

Le Soussigné, &c., a l'honneur de faire parvenir ci joint à M. Ward, &c., copie d'un rapport addressé par l'archiviste du Royaume au Ministre des Colonies et d'ou il resulte que les recherches faites pour decouvrir l'existence du vocabulaire des langues Hottentote et Hollandaise auquel se rapport la note de Sir R. Abercromby, du 4 Avril dernier sont restées infructueuses.

Le Soussigné en prenant la liberté de se référer au rapport précité qui constate la peine que l'on s'est donné pour obtenir un resultat plus favorable, saisit, &c.

(Sd.) Gevers d'Endegeest.

[Translation.] The Hague, 27th June, 1857.

In answer to your letter of the 21st April last, L. d. No. 48, I have the honour to acquaint you that all search for the required Hottentot dictionary has hitherto proved unavailing.

The correctness of the date given by the British Government at the Cape of Good Hope is in every respect confirmed by the documents existing here.

Two manuscripts of the Compendium or Vocabulary were forwarded to this country in two different vessels, but they are not to be found in the collection of letters and papers received from the Cape, perhaps, indeed, they were never put up among them. At least by a resolution of the Chamber of XVII, of the 22nd September, 1664, the vocabulary was delivered into the hands of the delegates of the Chamber of Amsterdam, in order to have it printed: with this object it was transmitted by them to their Chamber on May 1st of the same year, and the Storekeeper of the Chamber was directed to convey this into effect. Was this really done? I am not able to say.

For the correction of the accompanying note of the Governor of the Cape, it is to be observed that the resolution to print the Hottentot vocabulary was in fact taken, but that there is no proof at all of its ever having been carried into effect. With respect to the supposition mentioned in the note signed E. B. W., I must observe that the annual general letter of the Governor and Councillors of the Cape of Good Hope (not of the 22nd, but of the 19th April, 1665*) is extant with us in original, that I have read it, but that there is no mention in it of the receipt of any printed copies of the Hottentot dictionary.

The conclusion of all this is that the original copies of the dictionary, as written, are not to be found, and that it appears to me very uncertain, nay improbable, that anything further was done in the matter of sending it to press beyond the passing of the resolution.

It tends to a confirmation of this supposition that the celebrated Nicholas Witzen, in the year 1691, transmitted to Job Ludolph, as a novelty, a Hottentot vocabulary, which he had recently received by the ships coming from the East Indies, which vocabulary was afterwards printed. Although Witzen did not become director of the East India Company until two years later, it is rather strange that, with his extensive knowledge and love of research, he should never have known anything about a former Hottentot vocabulary, if such a one had really been printed, and copies of it distributed. The Archivist of the Kingdom.

(Signed) R. C. BAKHUISEN van den BRINK.

* It was supposed that this letter of April, 1665, of which there is no copy in the Colonial Letter Book of that date, contained an acknowledgment of the receipt of the vocabularies. In the annual general letter, of 1666, that of the previous year is spoken of as despatched on the 22nd April, 1665.

E. B. W.

It is possible that manuscript copies of this "compendium or vocabulary" may still be discovered in this Colony,—among neglected papers in the possession of the descendants of Wrede, if there be any, or the descendants of some of his contemporaries, who may have taken an interest in these matters. Many manuscripts, which would now be very valuable, could, no doubt, be obtained by examination of documents handed down from generation to generation in some of the old colonial families.

Wrede himself was shortly after, in the year 1665, made "assistant," and sent to the Mauritius in charge of a small party; but, in 1668, he was deported from the Cape to Batavia, for misconduct at the Mauritius. He was, however, subsequently appointed to the charge of the fort at Saldanha Bay, "in consideration of his long experience in this country, and his knowledge of the Hottentot language."—(*Vide* Moodie, p. 279.)

E. B. W.

Narrow Escape at Agulhas.—As some attention has recently been directed to the selection of a site for a lighthouse at Cape Point, the following illustration, from personal experience, of the unfortunate position of L'Agulhas Point may be interesting as a note.

Toward the close of the last month of the year 1853, one of the ships of the G.S.S. Company, on its homeward voyage, approached the shores of Southern Africa. The outward voyage was said to have been a tedious and, in some respects, an unfortunate one. The captain became the subject of a species of mental derangement, and at the end of the voyage he was compelled to leave the vessel. He took with him, then, most of the useful charts, &c., which were necessary to navigate the ship with safety. The first mate was appointed to the command for the voyage home, and a gentleman from Calcutta was engaged as second officer.

The African coast was first seen somewhere not far from Natal, and the first light on Cape Receife was seen a few nights after. For two or three days more the officers reckoned that the ship was then off L'Agulhas, but at such a distance that land could not be seen. About 11 p.m. the ship was supposed to be off Quoin Point, with fine moonlight, and a smooth sea.

It was now the turn of the first officer's watch below, and he was in his cabin. At this time an event occurred in an adjoining cabin of no extraordinary character, and in itself of no great importance to more than one or two individuals; but nevertheless, it had a striking bearing on the rescue of the ship from the very jaws of destruction. The event was this: a passenger lady spoke to her Indian servant in some way that gave offence to the latter, who then became so excited and unruly that the chief mate left his cabin to try to calm her down. This being done, he stepped up on deck for a minute or two, intending afterwards

to lie down again for another hour. On deck all was quiet and the ship was gliding along as beautifully as any sailor's heart could wish. The mate looked carelessly over the side, and immediately after shouted "back the engine," "heave the lead," &c., &c. The second officer now joined the first, and the Captain, who was down in the engine room, sprang upon deck, and several of the passengers also followed him.

On each side of the vessel they now discovered a line of coast, converging towards a mass of black rock lying right a-head. By the time the motion of the engine was reversed, and the ship's head turned round, they were within five minutes' sail of the rocks, and the soundings were 4½ fathoms, with a bottom so rocky that, in sounding, two leads were lost within a few minutes' time.

After retracing our course, for a short time, in 5, 5½, 6 fathoms water, the officers concluded that the bay into which the ship was entering lay to the eastward of Danger Point, and that the ship must be kept farther from the shore. We suggested that we were still to the east of Cape Agulhas; and, recollecting the fate of the *Doncaster*, the *Birkenhead*, and many other vessels on this coast besides, we sat down on deck, and looked out, with an eager eye, for the Agulhas light. After waiting for nearly an hour we saw, W. by N., what appeared to be a star, bright as the evening star, just on the horizon, and, in an instant, sinking down again. We shouted almost involuntarily—"The Agulhas light." "Where, where?" cried the captain. We pointed to the spot, but nothing was to be seen. The captain went aloft to watch. He soon saw the light again and again, and it was shortly after seen permanently by all on deck.

By daylight we were opposite the lighthouse, built at the bottom of a hill, and not far from the shore. It was the unanimous opinion of all on board that if the lighthouse had been built on the top of the hill, we could have seen the light a much greater way off; and, most probably, should not have been placed in the imminent danger through which we had passed. Z.

REPLIES.

The Milesians of Ireland.—According to the legendary history of Ireland, Milesius, King of Spain (about 1,300 years before the Christian era), was descended from Gathelus, by Scota, daughter of Pharaoh. Their descendants, a warlike race, known as the Scotti or Gadelians, invaded and conquered Ireland, under the command of Heber and Heremon, sons of Milesius. To these warriors the "pure" Irish affect to trace their lineage, and hence are termed Milesians. I need hardly observe that the whole story is a myth,—about as true as the conquest of Albion under Brut, and his Trojans. It is, however, an historical fact that Ireland was known, almost as late as the conquest, by the name

of Scotia. This latter name is said to have been carried and transferred to Caledonia by a colony of Irish bastards, who, expelled for the offence of their parents, from their native land, found a new home in the adjacent island. If this be a calumny I have no doubt some son of Albyn will expose it. W.

The Army of Mice.—(*Mus Colonus.* Smith). The accompanying letters on the Mice alluded to in a former number will show that the fate of the Bishop of Mentz may still be ours, unless the sterility of the Cape Flats starves the multitude before it reaches us.

E. L. Layard.

Salt River, August 7.

My dear Sir.—The following is a condensed extract of a Caledon letter, just received. "From what part of the colony the mice you enquire about first made their appearance I have not been able to learn. The little I have gathered concerning them is, that they appeared earlier in the Swellendam district than in the Caledon, and that they came from the Eastern or interior districts in teeming multitudes. At Mr. Streicher's, half an hour on this side of Swellendam, the house took fire from their having so excessively burrowed under the kitchen chimney, that the flames communicated with the wood work. Mr. Chapman does not recollect, exactly, when they came to his place (Quartel River), but they were previously at Mr. Breda's, the 'Oaks,' on the opposite side of River Zonder End. They made their appearance at Nether Court, P. L. de Bruin's, and Chapman's, all at the same time. About Christmas last, they made their first appearance on Van Deventrag's, Shield's Kloof, Ruggens, about two hours on horseback from Chapman's; next at P. Swart's, then at Dwaal Hoek, where they have been about a month, and lately they have entered Genadendal. They are really numerous, and I believe very prolific; extremely destructive to corn and garden produce; of pumpkins, they first eat the seed, then the pulp to the skin. They are playing very great mischief with all walls not built of stone. From the above you will see that they are slowly but surely approaching towards Cape Town."

P.S.—Cats are at a high figure at present. Mr. Chapman sent a cart-load of them to Mr. Breda, at the "Oaks."

Another correspondent writes as follows:—

Caledon, 21st August, 1857.

Having seen your note in the *Monthly Magazine* for July, regarding the mice infecting the Dry Ruggens of Caledon, I have done my utmost to get you a few, and am glad to say that I forward you, per mail-cart, *two*, which I hope may reach you alive—They are already within an hour's distance from the town.

NOTES ON THE EARTHQUAKE.

(FROM THE ROYAL OBSERVATORY.)

On the 14th of August, at 11h. 30m. p. m., there was a slight shock of an earthquake, just sufficiently distinct not to be mistaken for an ordinary rumbling of carriage wheels, in Cape Town and its vicinity. From reports, since obtained from the interior of the colony, the axis of the wave would appear to have been at a considerable distance to the east from Cape Town, which seems to have been upon the border of the surface operated over,—the damage done to buildings, in one distant place, having been serious, if not such as to render them untenantable. The night was calm and clear, without an air stirring, and without a shadow or trace of vapour; the sky perfectly cloudless. The day previous had been of the same character; nothing remarkable in the indications of barometer or thermometer, though (it may be here added, to complete our notice of the weather) the day following, viz. the 15th August, was marked by an elevation of temperature, which, for the season, caused it to be noticed as unusually warm, if not oppressive. At the hour above mentioned, 11h. 30m. Cape mean time precisely (all observers concurring in this statement as to the time), there was a sensible trembling of the ground, attended with a rumbling noise,—the latter rapidly augmenting as by a nearer approach of the cause; and then, after outlasting the movement by some seconds, dying away very gradually to the west of the Observatory. The entire shock and sound were, to my apprehension, of hardly more than one minute's duration,—judging from what passed through my mind upon first becoming convinced of the character of the phenomenon, and my subsequent movements up to the last audible token, as I stood in the open air, following the sound as it died away in the direction of Cape Town, or to the west. I found, however, upon visiting the several instruments under my charge, at the usual early hour next morning, that in two instances I was possessed of indications from which some estimate might be formed of of the extreme slenderness of the movement, as experienced at the Observatory, and at the same time of its vibrating character; and in one of these, perhaps, also, of the actual direction of the wave. Upon the diagram of Osler's self-registering anemometer, the tracings of the two pencils, which mark the direction and force of the wind, were found to be a very little darker and broader at the exact hour abovementioned, precisely the same for each pencil, in the direction of north and south, being the same in which the diagram, with its travelling frame, is made to pass under them by a clock movement; and (what was not a little remarkable, considering that the shock was of about only a single minute's duration) for a length of about the twentieth of an inch, a length of the diagram which would be carried under the pencils, by the clock

movement, in not less than ten minutes. One of the two pencils (that for the direction) has some freedom of play from side to side, as well as upward, owing to its looseness upon the wire, which serves it as a hinge; but the other pencil is quite differently adjusted,—moveable, but in the one direction of the cord, which pulls it forward out of a firmly-fixed socket, with such force as the wind may have upon a pressure-plate exposed to it, without any looseness or freedom in any other direction. The dark strokes of the two pencils were, however, in every respect, identical; and, as they admit of no explanation by the mere duration of the earthwave, in point of time, there is room for the inference that the table and frame were subject to a slight oscillating movement in the direction of the traces, that is, of the astronomical meridian. The second indication alluded to was found in the small building where the magnetical intensity is observed. A new sponge that had never been used, resting upon a slate, supported by a high moveable stand, had the sea sand shaken out of it upon the slate, so as to cover it pretty regularly all round the sponge.

My own notion of this phenomenon, a very rare one in South Africa, was confined to the above particulars, adding only that the suspended unifilar and bifilar magnets, which are observed at the same hours, daily, with the meteorological instruments, had not previously shown any departure from the usual daily course of change; but, after the 14th, for above a week, the former (the declination magnet) was found repeatedly in a state of agitation, and especially at the afternoon observations, with a jerking unequal movement through so much as ten minutes of arc occasionally, then still, and then again disturbed in the like manner. There were circumstances, however, noted by other observers, which it may be interesting to add. It was found by Mr. Maclear, H. M. Astronomer, that the delicate adjustments of the great transit circle in the Royal Observatory were wholly unaltered. It has been surmised, notwithstanding, that if the transit circle should, at the moment, have happened to have a star in the field, it would have appeared sensibly affected by the tremor; and what is above stated, as to the sponge in particular, would appear to leave little room to question that such must have been the case. The stability of the several errors of this admirable instrument has therefore been fully tested by the phenomenon, and proved to be perfect to an extraordinary degree. Mr. Maclear, I may add, in his first apprehension of the direction of the earthwave, had concluded it to be from east to west, but the evidence of the diagram convinced him that it must have taken rather that of the astronomical meridian, or nearly so. As to this point another gentleman, to whom we are indebted for very exact details of the attendant circumstances, and particularly observations taken immediately of both the barometer and thermometer, thought the movement, in his own locality (half way from the Observatory, towards Papendorp), to have the direction very

nearly of the magnetical meridian,—that is, from N. 30° W. to S. 30° E. He found nothing unusual in barometer or thermometer. A gentleman resident in the other direction from the Observatory, upon the Camp Ground, took it to be from S.E. to N.W., and distinctly felt his light iron bedstead carried to and fro for a slight space over the floor upon its castors. This was on the upper floor of a very large building. In Cape Town the direction of the street at hand seems to have had its influence on the estimate of observers;—some conceiving the direction to have been from Table Mountain to the town; others again transversely to this from the Lion; some, that is, from north to south; others, from east to west. Both at the Observatory and in Cape Town, and at a considerable distance also towards Stellenbosch (eastward), a brilliant momentary illumination of the whole atmosphere was noticed to occur about a quarter of an hour after the shock. This, as supposed by many who have witnessed such illuminations from very large meteors, may possibly have been unconnected with the earthquake. At the same time, it is beyond question, upon ample and varied testimony on repeated occasions in different parts of the globe, that meteors have both preceded, attended, and followed earthquakes in the locality, in abundance so striking as to stamp them as part of the phenomenon. It is very remarkable, I may finally add, that, in the present instance, by the concurring testimony of many, windows were shaken and rattled, as from a sudden violent agitation of the air for some moments (such as might be occasioned by a distant explosion), about half an hour after the shock.

P. Morton.

ASTRONOMICAL PHENOMENA FOR OCTOBER, 1857.

October 6, 2h. 1m. a.m., Jup. in conjunction with the moon, Jup. S 5° 36

„ 7, 0h. 29m. a.m., Uranus „ „ „ Ura. S 5 2

„ 9.—The star κ Aurigæ (fourth magnitude), will be occulted by the moon. Disappearance at 3h. 36m. a.m. Reappearance at 5h. 2m.

„ 11, 0h. 14m. a.m., Saturn and Moon in conjunction, Sat. S 4 43

„ 14, 7h. 47m. a.m., Mars and Moon „ „ Mars S 0 14

„ 15, 2h. 16m. a.m., Venus and Moon „ „ Ven. N 0 41

„ 16, 10h. 12m. a.m., Mercury and Moon „ „ Mer. N 2 47

Meteorological Register for August, 1857.

Deduced from five Observations daily, Sundays excepted.

Hours of observation, 1h. 34m., 5h. 34m., 9h. 34m., 17h. 34m., 21h. 34m., Cape mean time.—Height above the sea level, 37 feet.

Day.	Barometer corrected at 32° Fahrt.	Thermometer		Humidity of Air. Saturation = 100	Self-registering Thermom		WIND.		Rain.	Cloudy Sky in tenths.
		Dry.	Wet		Max.	Min.	Force.	Direction.		
	Inch.	°	°		°	°			Inch.	
1	30·216	53·06	49·98	80·6	58·3	47·2	3·0	SWbW	0·893	5·8
2					58·5	45·8			0·213	
3	30·288	53·46	49·46	75 6	60·2	46·0	3·9	SbE	0·034	1·4
4	30·228	54·92	50·06	71·2	60·7	48·0	5·3	S		2 0
5	30.053	58·66	52·16	64·8	65·2	51·8	5·7	S¼W		0·2
6	30·017	56·96	54·72	87·0	65·5	49·8	0·5	SW¼S	0·120	4 4
7	30·048	54·12	52·80	91·6	62·5	44·1	1·0	NbW¼W	0·439	6·1
8	30·138	54·30	52·54	89·2	59.0	46·0	0·3	NbW¼W		5·8
9					69·4	49·0			1·190	
10	30·251	58·02	55·60	86·2	63·0	52·5	4·8	S	0·140	2·5
11	30·306	58·86	54·84	77·4	62·8	53·0	5·7	SbW		1·1
12	30·350	59·20	55·96	82·2	63·0	53·0	6·1	S		2·3
13	30·284	60·08	55·26	74·0	64·7	50·0	2·6	SbW		0·8
14	30·139	60·32	55·48	74·8	68·0	47·5	0·1	SbW		0·0
15	30·082	62·22	56·82	75·4	73·8	51·6	0·2	SbE		3·9
16					57·5	51·6			0·081	
17	30·249	54·46	50·70	77·0	58·2	46·6	1·4	SbW		4·2
18	30·142	55·24	51·60	79·4	62·8	45·3	0·4	WSW		7·4
19	30·270	52·24	49·48	82 8	58·2	41·4	0·7	WNW	0·008	4·3
20	30·190	57·56	54·20	81·0	62·9	49·4	0·7	SbW ξ	(dew)	5·6
21	30·059	58·38	57·14	85·0	67·0	51·0	1·2	S	0·006	6·6
22	30·076	59·36	56·22	82·4	63·7	50·9	2·8	SW		4·1
23					75·5	55·1			0·497	
24	30·230	56·06	52·16	77·6	62·0	47·6	1·8	SWbS	0·344	7·1
25	30·322	56·20	53·24	82·8	59·8	50·8	2·3	S	0·010	5·7
26	30·219	59·22	56·98	87·6	63·3	54·0	6·0	S		3·7
27	30·251	60·72	56·68	78·0	65·5	53·4	4·6	SbW		0.7
28	30 158	63·54	58·54	75·0	68·1	53·8	2·5	SbW		0·4
29	30·126	60·86	54·70	68·2	73·8	50·1	2·9	SbE		1·3
30					64·5	46·0			0·006	
31	30·175	55·94	50·06	65·8	60·2	49·8	4·0	SbE¼E		4·6
Mean	30·187	57·52	53·75	78·92	63·79	49·42	2·7	SSW½N	3·981	3·5

MEAN RESULTS FOR THE SEVERAL HOURS OF OBSERVATION.

	A. M. h. m. 5·34	A. M. h. m. 9·34	P. M. h. m. 1·34	P. M. h. m. 5·34	P. M. h. m. 9·34	highest	lowest
Barometer, cor. to 32°, inches	30·186	30·221	30·167	30·170	30·192	30·375	29·960
Thermometer, dry bulb, deg.	52.65	59·24	62·65	58·05	55 00	77·50	44·30
„ wet bulb, deg.	50·44	54·99	56·93	54·28	52 07	63·60	43·00
Humidity of the air, per cent.	85·85	76·88	71·12	78·65	82 23	97·00	43·00

(Signed) PIERCE MORTON,
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CAPE MONTHLY MAGAZINE.

SYNOPSIS FILICUM AFRICÆ AUSTRALIS;

OR, AN ENUMERATION OF THE SOUTH AFRICAN FERNS:

BY L. PAPPE, ESQ., M.D., AND THE HON. RAWSON W. RAWSON, ESQ.

INTRODUCTION.

§ 1. THE natural family of Ferns comprises cryptogamic, mostly perennial plants, the leaves or fronds of which are, in the early stage of their growth, coiled up in a particular way, so as to represent a scroll. Their fronds show a great variety of form and texture, and generally bear on the veins of the under surface, or along their edges, the organs of the fructification.

§ 2. These consist of *capsules* or spore-cases *(sporidia)*, which burst in various ways, and are either continuous, spread about irregularly, grouped together in heaps *(sori)*, or more rarely collected into spikes or racemes, formed by the contraction of part of the frond.

§ 3. These capsules are one-celled, stalked or sessile, generally surrounded by an articulated elastic ring, and discharge, when mature, the *spores*, or minute seeds, which they contain. The *sori* or clusters of sporidia are, in a great many genera, protected by a peculiar membrane, or scale, called the *indusium* or involucre, which is deciduous or persistent, derives its origin from the epidermis of the frond, and covers the sori entirely or in part; while in other cases, the borders of the frond, being dilated and reflexed, perform the function of that membrane.

§ 4. The Ferns arise from a subterraneous root-stock *(rhizome)*, which for the most part is creeping and of a woody nature. Their stem, or that portion of the rhizome which rises above ground *(caudex)* is almost ever upright and simple, and but rarely climbing *(Stenochlæna Meyeriana)*, or branched (*Gleicheniaceæ*). It is very short, and nearly wanting in some species, yet becomes arborescent in others, and often attains a considerable height *(Cyathea, Alsophila)*. This caudex, which is hollow within, and not possessed of a fibrous

inner bark (*liber*), is generally hard from without, and of a glossy appearance. Both the root-stocks and the stems of some of these plants contain peculiar resinous substances, which have anthelmintic properties, and serve as vermifuges (*Lastrea athamantica*, etc.,)—a fact, already known to the ancients.—Theophr. Hist. Plantar, 18, 8.

§ 5. In the formation of the leaves, nature has displayed her wondrous charms. These leaves are called *fronds* by botanists, and are either stalked, or more rarely sessile, or sometimes jointed to the caudex or root-stock by articulations. They are persistent and evergreen within the tropics and temperate zones, but deciduous in cold climates, in which case the frond is yearly renewed. Their texture is herbaceous, membranaceous or leathery; their upper surface generally dark, smooth, glazed or shining; the under side, on the contrary, paler, very veiny, often clothed with short hair, and furnished with minute breathing pores (*stomata*). In a few genera only, both surfaces are nearly alike. (*Vittaria, Hymenophyile*). The fronds are rarely simple and entire, much oftener lobed, digitate, or pinnatifid, but mostly pinnate or further divided. Their *pinnæ* and *pinnules*, again, are entire, notched, sawed, toothed, incised, or pinnatifid, and frequently unequally shaped at their bases.

§ 6. The *stipes*, which in this family represents the leaf-stalks of phanerogamous plants, is connected with the stem or the rhizome by articulation. It is of different size: almost wanting in some species, or of considerable length in others; mostly herbaceous, but sometimes woody, and covered by an epidermis, which in the course of growth becomes brittle, glossy, and of a dark-brown or blackish hue. The continuation of the stipes through simple fronds goes by the name of rib or *costa*, while its further ramifications in pinnated fronds are called *rachises*.

§ 7. The root-stocks, stems, stalks, and rachises of Ferns are often clothed, especially in their youth, with a peculiar kind of deciduous, membranaceous, chaffy scales, which are decidedly hygroscopical (absorbing water), scarious, dispersed, or imbricated, erect, twisted, filiform, lanceolate, oval, etc., and of a brown, black, or yellow colour. They are called *Paleæ*, differ in size, and their edges are either entire, sawed, fringed, or irregularly torn.

§ 8. The process of fecundation in this family of plants has been the speculative task of many naturalists. Some skilful hypotheses have been advanced on the subject by eminent authors, in order to establish sexuality amongst them; but as

nature has mysteries of her own to hide from mortal view, so these theories, however intelligent, are only to be looked upon as ingenious suppositions. That young Ferns may be reared from spores, or seeds, is sufficiently known, as well as that some of them are propagated by leaf buds. (*Asplenium gemmiferum*).

§ 10. For the purpose of systematic classification, the filical tribe has been divided into *sub-orders*, the chief characters of which, are to be found in the construction, shape, dehiscence, or position of the *sporidia;* the presence or absence of an *involucre*, the form of the *spores*, the vernation, etc. In *Hymenophylle* (small Ferns with very delicate, almost transparent, fronds, *without stomata*), the marginal spore-cases are placed upon the top of an extended vein, and covered with a cuplike involucre, formed by the lobes of the frond; while the capsules in *Ophioglosseæ* are spiked on the margin of a contracted leaf, possess no ring at all, and have a straight vernation.

§ 11. If the graceful Fern trees of tropical or sub-tropical climes approach *Cycadeæ*, and remind us of the majestic growth of *Palms*, then the small order of *Lycopodiaceæ* or club-mosses show, in the structure and shape of their leaves, an affinity to the muscal alliance. These plants form indeed a family of their own, but are commonly classed with Ferns as an intermediate group. They have creeping or erect stems; their leaves are small, sessile, whorled, or imbricated, and their fructification, which is spiked or axillary, consists of bivalved cases, containing minute powdery spores. Of this order, but few representatives are known to inhabit S. Africa.

§ 12. In most true Ferns, but especially in the dorsiferous ones, the peculiar course, position, distribution, and ramification of the nerves and veins, placed at the back of their fronds, are highly important for the supply of superior *generic characters*, being, as they are, closely connected with the insertion of the organs of fructification. They, therefore, are very valuable also in the arrangement of fossile Ferns, which, as we learn from geology, abounded in great number and variety during the carboniferous epoch of the earth, and of which some hundred species, belonging to different genera, have been described.

§ 13. Although Ferns exist in nearly all parts of the globe, yet countries situated within or somewhat beyond the tropics, seem to be most genial to their growth and development. They generally delight in warm, moist, shady localities, and thrive best in woody mountainous regions. In the western

districts of the colony of the Cape of Good Hope they are proportionally rare for that reason, but increase in species towards the east, and become frequent and distinct in the dense woods, mountain ravines, and near the cascades of Natal. The aboriginal forests of British Kaffraria, as yet unexplored, undoubtedly conceal strange forms, quite new to the scientific world.

§ 14. If we estimate (by moderate calculation) the entire number of South African plants at about 12,000 species, out of which one thousand at least, are cryptogamic or cellular, it then becomes apparent, that the Ferns are but poorly represented in this great and imposing assemblage, forming hardly one-sixtieth part of the whole Flora, and scarcely one-fifth part of the plants of the lower classes, known to exist in so wide and rich a tract of territory.

§ 15. It is rather remarkable that, up to this date, not one single genus of Ferns has been discovered which could be said to be exclusively peculiar to this country, while even eighty-eight of the species described in this treatise, or about the half of them only, could claim that privilege. The rest of them are widely diffused, for we find thirty-one out of the number inhabiting the Mascarenhas (Mauritius and Reunion). Fifteen are found in Europe; fifteen grow in the West Indies, eleven in New Holland, ten in North America, nine in South America, eight in the Brazils, seven in the East Indies, six in the barren island of Tristan d'Acunha, six in the Canaries and Azores, five at Java, five in Central America, five in the north of Asia, six in the Sandwich Islands, three in North Africa, two in New Zealand and Tasmania, two at Luzon, one in Amboyna, Singapore, Fernando Po, China, and Japan. The rare *Cyrtomium falcatum*, a native of the lastnamed country, has but recently been found by Capt. Espinasse in the forests of British Kaffraria.

§ 16. Collectors of Ferns should not be satisfied with gathering fertile specimens alone, but secure, in like manner, sterile fronds and young shoots, which often greatly differ from perfect plants in their general aspect. The root-stocks and caudices also are of importance, and ought to be preserved.

§ 17. To persons who take an interest in the natural history of S. A. Ferns, a short review of the principal works treating on that topic may be acceptable. Thunberg,* whose writings

* Prodromus Plantarum Capensium, 2d volume. Upsalæ, 1800, 8vo., and Flora Capensis ed. Schultes, Stuttg. 1823, 8vo.

on the Flora of this country are invaluable, described only thirteen genera and twenty-nine species of Ferns as indigenous. At a later period, Professor de Schlechtendal, encouraged by the examination of the valuable collections brought home by several zealous botanical travellers, and deposited in the Royal Herbarium of Berlin, issued a work on South African Ferns.* Here the author not only gives his own elaborate descriptions of many new, rare, or little known species, but also inserts Dr. Schrader's remarks on Cape Ferns, hitherto concealed in a learned periodical,† little accessible to botanical students. This important publication, which unhappily has been left unfinished, contains the descriptions of twenty-three genera and sixty-nine species. The latest monograph on the subject we owe to the pen of one of the ablest Pteridologists of our time. The rich collections made in this country by Ecklon and Zeyher, Drege, Gueinzius, and others, supplied the late and much lamented Professor Kunze (of Leipzic) with ample materials for his treatise on South African Ferns. This appeared under the title of "Acotyledonearum Africæ Australioris recensio nova. I. Filices, in the Linnæa ‡ for 1836 and 1844, and contains thirty-three genera and one hundred and eleven species, many of which were perfectly new. Some of them are also figured in Kunze's continuation of Schkuhr.§ Since then, the number of South African Ferns has been on the increase, a fact borne out by the contents of the following pages.

SYNOPSIS OF SOUTH AFRICAN GENERA OF FERNS.

The classification adopted in the following description is mainly that established by Professor Presl, in his admirable "Tentamen Pteridographiæ," published in 1836, and followed by Sir Wm. Hooker, in his exquisitely illustrated "Genera Filicum," published in 1842.

The latter author, in his subsequent, more detailed, work, commenced in 1846, under the title of "Species Filicum," has somewhat modified Presl's arrangement, and other later authors have introduced more extensive changes; but as none

* Adumbratio Filicum in Promontorio Bonæ Spei provenientium. Part 1-5, Berl. 1825 26, 4to., with 24 engraved plates.

† Gœttinger gelehrte Anzeigen, 1818.

‡ Linnæa. Ein Journal für die Botanik in ihrem ganzen Umfange.

§ G. Kunze, Die Farrnkræuter in colorirten Abbildungen. Leipz. 1840, sq. 4to.

of these have been generally accepted, and as Sir Wm. Hooker's work on the species of Ferns is still incomplete, it has been deemed preferable to adhere generally to the classification of Presl.

This author excludes from the order of Ferns (Filices) the group Hymenophylleæ of Endlicher, containing the two genera of Hymenophyllum and Trichomanes, which Sir William Hooker has restored, placing them between the tribes Dicksoniaceæ Pr., and Davalliaceæ Pr. He also excludes the order of Lycopodiaceæ, and others akin to, but not comprised in the order of "Filices." The same arrangement will be adopted in the following synopsis.

Presl admitted two sub-orders, established by Bernhardi, dependent upon the character of the elastic ring surrounding the capsules (sporangia), viz., Helicogyratæ, having an eccentric ring, and Cathetogyratæ, having a marginal ring seldom complete. The former embraces only the first two tribes of the order. The distinction cannot easily be detected without a magnifying glass, and need not be attended to in a study of the Ferns of South Africa.

ORDER FILICES.

SUB-ORDER, HELICOGYRATÆ.

TRIBE 1.

Gleicheniaceæ. Kunze. *Fronds* creeping, spreading, generally dichotomous, pinnate, coriaceous, with gemmæ in axils. *Pinnules* small, linear. *Involucre* none. *Sori* globose, solitary or few.

Gen. 1.—*Gleichenia.* Swartz. *Sori* immersed.

Gen. 2.—*Mertensia.* Willd. *Sori* superficial, on a raised dotlike receptacle.

To this tribe belong the genera Platyzoma, Brown, and Calymella, Presl, which are not, as far as is known, represented in South Africa.

TRIBE 2.

Cyatheace. Endlicher. *Plant* arborescent. *Stem* erect. *Involucre* cup-shaped, inferior, or wanting.

Gen. 1.—*Cyathea.* Smith. *Sori* on fork of veins, with an involucre.

Gen. 2.—*Alsophila.* Br. (Hemitelia, Presl). *Sori* at base veins, with spurious involucre.

Schizocæna, I. Smith., Cnemidaria, Pr., Trichopteris, Pr., Metaxya, Pr., and Gymnosphæra, Blume., are not represented in South Africa.

GROUP 1. (SUB-ORDER CATHETOGYRATÆ), having an involucre (true or spurious.)

TRIBE 1.

Peranemaceæ. Pr. *Sori* globose pedunculate or on middle of superior veinlet. *Involucre* inferior, covering the *sori.*

This tribe, containing Peranema, Don., Diacape Blumee., Woodsia Br., and Hypoderris Br., is not represented in South Africa.

TRIBE 2.

Aspidiaceæ. Pr. *Sori* globose, on middle, seldom on apex of veins. *Involucre* superior, free, except at point of insertion; deciduous. *Rhizome* creeping, or sub-globose.

SECT. 1.—*Nephrodiariæ.* Pr. *Involucre* kidney-shaped.

Gen. 1.—*Lastrea.* Pr. *Veins* simple or forked.

Gen. 2.—*Oleandra.* Cavanilles. *Veins* numerous, close, parallel; root creeping.

Gen. 3.—*Nephrodium.* Schott. *Lower veins* arching.

Nephrolepis Schott is not represented in South Africa.

SECT. 2.—*Aspidiariæ.* Pr. *Involucre* round or elliptic; entire.

Gen. 1.—*Polystichum.* Schott. *Sori* round; *veins* simple or forked; *fronds* coriaceous.

Gen. 2.—*Cyrtomium.* Pr. *Sori* round; *veins* irregularly reticulate.

Gen. 3.—*Didymochlæna.* Desvaux. *Sori* elliptic; sub-immersed.

Phanerophlebia., Pr., Cyclodium, Pr., Sagenia., Pr., Fadyenia., Hooker., Mesochlæna., Br., Aspidium., Schott, Pleocnemia., Pr., and Matonia., Br., are not represented in South Africa.

TRIBE 3.

Aspleniaceæ. Pr. *Sori* globose, oblong, or linear, on back of veins. *Involucre* suborbiculate, or linear, lateral, persistent, skinny; free at margin opposite point of insertion. *Rhizome* globose, seldom creeping.

SECT. 1. *Cystopterideæ.* Pr. *Sori* globose. *Involucre* suborbiculate, becoming reflex and wrinkled.

Gen. 1.—*Cystopteris.* Pr. Bernh. *Sori* on middle of veinlets.

Acrophorus, Pr., Leucostegia, Pr., and Onoclea., Linn., are not represented in South Africa.

SECT. 2. *Blechnaceæ.* Pr. *Sori* oblong, short, or linear long. *Involucre* corresponding, flat.

Gen. 1.—*Athyrium.* Roth. *Sori* oblong, short, curved, on middle of veins.

Gen. 2.—*Blechnum.* L. *Sori* linear, contiguous or confluent, on transverse veinlets uniting veins, parallel to rachis.

Woodwardia Sw., Doodia Br., and Salpichlæna I. Sm., are not represented in South Africa.

SECT. 3. *Aspleniariæ.* Pr. *Sori* linear, long in some species (Cænopteris, Bernh., or Darea, Auct), marginal or sunk in margin. *Involucre* corresponding, flat.

Gen. 1.—*Asplenium.* L. *Sori* linear, long. *Involucre* lateral on vein.

Gen. 2.—*Ceterach.* Willd. The same, with underside of *frond* densely covered with scales.

Plenasium, Pr., Allantodia, Br., Neottopteris, I. Sm., and Hemidictyum, Pr., are not represented in South Africa.

SECT. 4. *Diplazieæ.* Pr. *Sori* linear, long, the lowest upper, and sometimes all, bilateral or double.

This tribe, containing Diplazium, Sw., Anisogonium, Pr., Digrammaria, Pr., and Oxygonium, Pr., is not represented in S. Africa

SECT. 5. *Scolopendrieæ.* Pr. *Sori* linear, long, opposite on adjoining opposite veins. *Involucre* corresponding, flat, open sides facing one another.

Gen. 1.—*Scolopendrium.* Sm. *Veins* close and parallel.

Antigramma, Pr., and Camptosorus, Link., are not represented in South Africa.

TRIBE 4.

Davalliaceæ. Gaudichaud. *Sori* infra-marginal, globose or linear, on ends of veins or veinlets. *Receptacle* dot-shaped, club-shaped, or linear. *Involucre* lateral, semiorbiculate, oblong, or linear, persistent, skinny, free at upper margin. *Rhizome* sub-globose, or creeping.

SECT. 1. *Davallieæ.* Pr. *Sori* globose or longitudinally linear. *Involucre* semi-orbiculate or longitudinally linear.

Gen. 1.—*Microlepia.* Pr. *Sori* removed from margin. *Involucre* truncated, covering half the sorus.

Gen. 2.—*Davallia.* Sm. *Sori* infra-marginal on back of teeth or sinus.

Saccoloma, Kaulf., Humata, Cav., and Loxsoma., A. Cunningham, are not represented in South Africa.

SECT. 2. *Lindsœaceæ.* Pr. *Sori* transversely linear, submarginal, generally continuous. *Involucre* lateral, linear, thin, membranaceous, free towards margin.

Gen. 1.—*Lindsœa.* Dryander. *Sori* and *involucre* continuous, parallel to margin. *Veins* much forked.

Isoloma, I. Sm., Schizoloma, Gaudich., Synaphlebium, I. Sm., and Dictyoxyphium, Hook., are not represented in South Africa.

TRIBE 5.

Dicksoniaceæ. Pr. *Sori* globose, sub-marginal on end of veins or veinlets. *Receptacle* globose. *Involucre* lateral, persistent, bivalve; the true one being the lower valve, affixed laterally by semi-circular line, the accessory one being like a cap, formed of teeth of frond, and covering the sori.

This tribe, containing Balantium, Kaulf, Cystodium, I. Sm., Culcita, Pr., Leptopleuria, Pr., Dicksonia, Pr., Patania, Pr., Cibotium, Kaulf., Thyrsopteris, Kze., and Deparia, Hooker, is not represented in South Africa.

TRIBE 6.

Adiantaceæ. Pr. *Sori* linear, or oblong, or globose; marginal, seldom sub-marginal; fixed on underside of involucre, springing from end of veins or veinlets. *Receptacle* linear or dot-shaped. *Involucre* formed of reflexed margin, bearing the capsules, linear, oblong, semi-orbiculate, or semi-lunate.

SECT. 1. *Adiantariæ.* Pr. *Sori* separate, but soon confluent, covering the margin of the whole pinnæ, on edge of teeth or segments.

Gen. 1.—*Pteris.* L. *Sori* linear, marginal, continuous. *Veins* simple or forked. *Involucre* broad.

Gen. 2.—*Lomaria.* Willd. *Fertile frond* contracted; *veins* ditto; *sori* sub-marginal.

Gen. 3.—*Campteria.* Pr. Like *Pteris*, but lower veins anastomosing and arching at sinus.

Gen. 4.—*Allosorus.* Bernh. *Sori* roundish, separate, then confluent and linear, hid by folded margin and involucre.

Gen. 5.—*Cryptogramma.* Br. *Sori* linear, on oblique veins, hid by folded margin; no involucre.

Gen. 6.—*Adiantum.* L. *Sori* marginal, globose, kidney-shaped, oblong or linear; distinct, or confluent, or continuous. *Involucre* corresponding to sori, formed of reflexed margin of underside of frond, and bearing the capsules beneath.

Gen. 7.—*Cheilanthes.* Sw. *Sori* marginal, globose, generally upon a lobe or tooth of the margin of frond, which becomes reflexed, solitary, contiguous or confluent. *Involucre* kidney-shaped or oblong.

Haplopteris, Pr., Litobrochia, Prl., Amphiblestra, Pr., Ceratodactylis, I. Sm., Onychium, Kaulf., Jamesonia, Hook. *et* Greville, Hewardia, I. Sm., and Ochropteris, I. Sm., are not represented in South Africa. Platyloma, I. Sm., is included in Allosorus, Bernh., and Cassebeera, Kaulf., in Cheilanthes, Sw.

SECT. 2. *Lonchitideæ.* Pr. *Sori* globose or linear, occupying sinus of teeth and segments. *Involucre* semi-lunate or linear, marginal.

Gen. 1.—*Hypolepis.* Bernh. *Sori* punctiform, sub-globose. *Veins* simple or forked.

Gen. 2.—*Lonchitis.* L. *Sori* linear, semi-lunate. *Veins* anastomosing.

GROUP 2. (SUB-ORDER CATHETOGYRATÆ), having no involucre. *Sori* naked.

TRIBE 7.

Vittariaceæ. Pr. *Sori* sunk in margin, linear, or globose. *Rhizome* creeping.

Gen. 1.—*Vittaria.* Sm. *Sori* linear. *Frond* simple, linear.

Prosaptia, Pr., (a doubtful genus) is not represented in South Africa.

TRIBE 8.

Polypodiaceæ. Pr. *Sori* globose on apex or back of veins in disc of frond; seldom confluent. *Receptacle* dot-shaped. *Rhizome* creeping, seldom sub-globose.

SECT. 1. *Struthiopteridæ.* Pr. *Fertile fronds* contracted.

This tribe, containing only one genus, Struthiopteris, Willd., is not represented in South Africa.

SECT. 2. *Polypodieæ.* Pr. Margin of frond uniform with disc, flat. *Fronds* often simple or digitate.

Gen. 1.—*Polypodium.* Lin. *Sori* at end of simple or forked veins, or on mid-veins or veinlets.

Gen. 2.—*Goniopteris.* Pr. *Sori* on mid-veins; first four opposite veins anastomosing in acute angled arch.

Gen. 3.—*Marginaria.* Bory. *Sori* 1-3 serial, at end of primary, or secondary, veinlets, in hexagonal maculæ.

Gen. 4.—*Pleopeltis.* Humboldt and Bonpland. *Sori* large, serial, veinlets anastomosing, the middle maculæ containing two or three secondary veinlets, making an oblong macula, bearing sorus at the end. Pedicellated scales in sorus.

Gen. 5.—*Phymatodes.* Pr. *Veins* anastomosing, secondary veinlets clubbed. *Sori* at end of veinlets.

Gen. 6.—*Niphobolus.* Kaulf. *Sori* multi-serial, contiguous, covering upper part of frond.

Stenosemia, Pr., Goniophlebium, Pr., Campyloneurum, Pr., Dictyopteris, Br., Phlebodium, Br., Aglaomorpha, Schott., and Dryostachyum, I. Sm., are not represented in South Africa.

SECT. 3.—*Lecanopterideæ.* Pr. *Sori* sub-globose, sub-marginal in the teeth of the frond, extended into broad cartilaginous lobes, bearing the sori.

This tribe, containing only one genus, Lecanopteris, Bl., is not represented in South Africa.

TRIBE 9.

Grammitaceæ. Pr. *Sori* linear long, seldom linear oblong, short on back of veins or veinlets. *Receptacle* linear. *Rhizome* creeping or sub-globose.

SECT. 1.—*Grammitideæ* Pr. *Sori* on back of simple veins, or of upper veinlet, or of one secondary veinlet.

Gen. 1.—*Grammitis.* Sw. *Sori* small on mid-veins, or upper veinlets.

Synammia, Pr., Monogramma, Schkuhr., Stegnogramme, Bl., Meniscium, Schreber., Microgramma, Pr., Loxogramme, Pr., Polytænium, Desv., Anthrophyum, Kaulf., Diblemma, I. Sm., and Selliguea, Bory., are not represented in South Africa.

SECT. 2.—*Hemionitideæ.* Pr. *Sori* confluent on all the veinlets of branching veins, long, linear, narrow.

Gen. 1.—*Gymnogramma.* Desv. *Sori* small and covering frond.

Hemionitis, L., is not represented in South Africa.

TRIBE 10.

Tænitideæ. Pr. *Sori* linear, generally continuous, on veins, veinlets, or parenchyma, or extending to the rib on each side laterally, or on the mid disc of each side, or on margin of frond. *Rhizome* sub-globose, or creeping. *Frond* often simple.

Gen. 1.—*Notholæna.* Br. *Sori* linear, marginal, continuous; sometimes with a narrow revolute margin.

Gen. 2.—*Pteropsis.* Desv. *Sori* linear, sub-marginal. *Receptacle* elevated.

Pleurogramme, Pr., Jenkinsia, Hook., Tæniopteris, Hook., Tænitis, Sw., Lomagramma, I. Sm., and Drymoglossum, Pr., are not represented in South Africa.

Tribe 11.—*Acrostichaceæ.* Pr. *Sori* superficial, covering the whole of the underside of frond. *Fertile frond* generally contracted. *Rhizome* creeping or sub-globose.

Gen. 1.—*Stenochlæna.* I. Sm. *Fertile frond* contracted, with revolute margins.

Gen. 2.—*Olfersia.* Raddi. *Fertile frond* contracted, with flat margin. *Veins* of sterile frond parallel, close.

Gen. 3.—*Acrostichum.* L. *Fertile frond* not contracted. *Veins* anastomosing regularly in long hexagons.

Polybotrya, Humb. and Bonp., Elaphoglossum, Schott., Aconiopteris, Pr , Campium, Pr., Platycerium, Desv., Pæciopteris, Pr., Gymnopteris, Bernh., and Photinopteris, I. Sm., are not represented in South Africa.

TRIBE 12.

Hymenophylleæ. Endlicher. *Sori* marginal, lateral or terminal, at end of vein. *Involucres* monophyllous. *Receptacle* elongated, columnar, or filiform. *Capsules* sessile, covering more or less the receptacle. *Caudex* creeping, filiform, slender.

This tribe, "chiefly founded upon the complete transverse ring of the capsules, the very much elongated, columnar or filiform receptacle, and the delicate texture of the frond," is placed by Sir W. Hooker next to the genus Loxsoma, in his tribe Dicksoniaceæ.

Gen. 1.—*Hymenophyllum.* Sm. *Receptacle* generally included. *Involucre* bivalved, cup-shaped, or orbicular.

Gen. 2.—*Trichomanes.* Linn. *Receptacle* generally exserted. *Involucre* tubular, sub-cylindrical, generally entire.

ORDER PARKERIACEÆ. Hook. *Aquatic Ferns,* with spore cases very thin, surrounded by a broad, imperfect, or obsolete ring.

This order, containing Ceratopteris, Brongniart , and Parkeria, Hook., is not represented in South Africa.

ORDER SCHIZÆACEÆ. Mart. *Spore cases* dorsal, with a complete terminal contracted ring. *Spores* pyramidal or conical.

Gen. 1.—*Schizæa.* Sm. *Spore cases* oval, sessile, vascular, reticulate, placed on linear or pinnated appendages. *Involucre* formed of reflexed margin. *Fronds* cæspitose, linear, simple or dichotomous.

Gen. 2.—*Anemia.* Sw. *Spore cases* the same, placed on one-sided spikes, densely panicled, biserial. No *involucre.* Fertile portion of *frond* dissimilar.

Gen. 3.—*Mohria.* Sw. *Spore cases* sub-globose, sessile, reticulate, placed near concave margins of under side of frond. *Fertile frond* partially contracted.

Actinostachys, Wallich., Lygodictyon, I. Sm., Lygodium, Sw., Anemidictyon, I. Sm., and Trochopteris, Gardner., are not represented in South Africa.

ORDER OSMUNDACEÆ. Mart. *Spore cases,* dorsal or panicled, stalked, with a broad dorsal incomplete ring.

Gen. 1.—*Osmunda.* Linn. *Spore cases,* heaped on lateral or terminal pinnæ, contracted.

Gen. 2.—*Todea.* Willd. *Spore cases,* heaped on veins, upon under side of frond, thickly or thinly spread.

ORDER. MARATTIACEÆ. Kaulf. *Spore cases*, without a ring, dorsal, combined in masses, and splitting by a central cleft.

Gen. 1.—*Marattia.* Sw. *Sori* oblong, sessile on forked veinlet, in single series, near the margin. *Involucre* coriaceous.

Eupodium. I. Sm., Angiopteris, Hoffmann., Danæa, Sm., and Kaulfussia, Bl., are not represented in South Africa.

ORDER OPHIOGLOSSEÆ. Br. *Spore cases*, ringless, distinct, bivalved, formed on margin of a contracted leaf.

Gen. 1.—*Ophioglossum.* Linn. Spike undivided in two rows.

Botrychium, Sw., and Helminthostachys Kaulf. are not represented in South Africa.

ORDER LYCOPODIACEÆ. Sw. *Spore cases* axillary, one to three-celled.

Gen. 1.—*Lycopodium.* Linn. *Spore cases*, 1 to 4-lobed sessile; often in spikes.

Gen. 2.—*Psilotum.* Sw. *Spore cases*, 3-lobed, globose, sessile, solitary, at base of minute leaves.

Tmesipteris Bernh., is not represented in South Africa.

SYNOPSIS OF SOUTH AFRICAN SPECIES OF FERNS.

I. GLEICHENIACEAE. KZE.

I. GLEICHENIA. SW. (2 Species.)

1. *Gleichenia polypodioides.* Sw. *Frond* dichotomous, much branched, proliferous; *branches* pinnate, spreading; *pinnae* pinnatifid; *segments* ovate, more or less glaucous beneath, smooth; *capsules* 3-4, immersed on the underside of the frond, forming flat-topped *sori*. *Stipes* and *rachises* rather smooth. *Caudex* creeping.—Hook. Spec. Filic. vol. 1, p. 3, Schkuhr. Filic. t. 149.

Var. *glauca.* *Pinnae* somewhat longer and closer; fronds more glaucous beneath.

Common on Table Mountain, and in many parts of the Colony, and Natal.—*v. v.* & *s.**

2. *Gleichenia argentea.* Kaulf. *Fronds* dichotomous, branching; *branches* pinnate, spread; *pinnæ* pinnatifid;

* V. V. and S.—Vidi vivam et siccam.

segments wedge-shaped, very blunt, rounded at the apex, silvery beneath; *rachises* clothed in a thick woolly ferruginous shag. *Capsules* about 4. *Caudex* creeping, surrounded with stellate bristly scales.—Kaulf, Enum. Filic., p. 36.

In moist shady places, amongst rocks on Table Mountain (Chamisso.), at Genadendal (Rev. C. R. Kölbing), near the Van Staden's River, Uitenhage (Ecklon and Zeyher), *v. s.*

II. MERTENSIA. WILLD. (1 Species.)

3. *Mertensia umbraculifera.* Kze. *Fronds* repeatedly dichotomous, much branched, pinnatifid ; segments linear, comb-shaped, blunt or slightly pointed, glabrous above, and glaucous beneath; *ribs* and *rachises* clad with ferruginous woolly shag. *Stipes* long erect, channelled naked ; *rhizome* horizontal, paleaceous.—Kze Linnæa., vol. 18, p. 116.

In British Kaffraria, and on the grassy banks of the Omnaroti River, Natal.—(Gueinzius.) *v. s.*

II. CYATHEACEÆ. ENDL.

III. CYATHEA. SMTH. *(Arborescent.)* (2 Species.)

4. *Cyathea Dregei.* Kze. Unarmed, *fronds* 2 pinnate, coriaceous ; *pinnules* lanceolate, pointed, deeply pinnatifid, smooth above, paler below, and rufo-tomentose on and near the *rachis* beneath; *segments* oblong-ovate, subfalcate, obtuse, entire or serrated; *sori* on the lower half of the segments immersed in rufous wool ; *involucre* hemispherical, breaking irregularly; *Stipes* short, rough, scaly.—Hook. Spec. Filic., vol. 1, p. 23., Tab. 10, fig. 13, and Tab. 17, fig. A. Kunze Linnæa, vol. 10, p. 551.

In forests near Bethel (Kaffraria), and the Magalisberg (Zeyher), in a rocky valley at the great cataract between Omzamwoobo and Omzamcaba (Drege), near the Moore River. (Natal. Plant.) *v. s.*

5. *Cyathea Burkei.* Hook. *Fronds* 2-pinnatifid, membranaceous; *pinnules* lanceolate, bluntly acuminate, 2-pinnatifid ; *rachis* partially woolly, smooth above ; *segments* oblong-ovate, obtuse, entire, the *costa* hairy at the base. *Sori* few, often solitary ; *involucre* globose, with an irregular opening at the top. *Stipes* tubercled with small prickles, and at its base, and that of the main rachis, clothed with glossy brown, chaffy scales.—Hooker Spec. Filic., vol. 1, p. 23, Tab. 17, B.

In forests at Magalisberg. (Zeyher.) *v. s.*

IV. ALSOPHILA. R. BR. *(Arborescent.)* (1 Species).

6. *Alsophila Capensis.* J. Smth.* Unarmed; *fronds* 3-pinnate; *pinn* lanceolate-acuminate membranaceous, deeply pinnatifid; *segments* narrow-oblong, acute falcate serrated (rachis and costa, with small deciduous scales), veins simple, or rarely forked. *Sori* cylindrical, generally solitary at the bases of the lowest veins, on the upper half of the segment.—Hook. Spec. Filic., vol. 1, p. 36. *Hemitelia Capensis.* R. Br. *Amphocosmia riparia.* Gardner. *London Journal of Botany*, vol. 1, p. 441, Tab. 12.

Common in the woody ravines and forests of South Africa.—*v. v.* and *s.*

III. ASPIDIACEÆ. PRESL.

V. LASTREA. PRSL. (7 Species.)

7. *Lastrea Thelypteris.* Prsl. *Fronds* pinnate; *pinnæ* pinnatifid, linear-lanceolate smooth; *segments* ovate, acute, nearly entire, the fertile-ones revolute. *Sori* marginal, contiguous, at length confluent. *Stipes*, with or without scales, downy at the apex. *Caudex* creeping. *Aspidium Thelypteris.* Sw. Schlecht. Adumbr. Filic. Capens, p. 23, Tab. 11.

In moist localities, near rivulets, in the Cape flats, on Devil's Mountain, near the Paarl, Swellendam, Tulbagh, Uitenhage, &c., also at Natal.—(*v. v.* and *s.*)

8. *Lastrea patens.* Presl. *Fronds* pinnate; *pinnæ* pinnatifid; *segments* subfalcate-lanceolate, acute, the lower ones of the inferior pinnæ pinnatifido-incised. *Sori* small, round, in a double line; upper portion of the *stipes*, costa, and rachises downy.—*Aspidium patens.* Sw. Schlecht, l. c., p. 22. Hook. Genera Filic., t. 45 a.

In shady localities, at the foot of Table Mountain (Kirstenbosch), and in the forests of Stellenbosch, George, Uitenhage, British Kaffraria, and Natal.—*v. s.*

* 9. *Lastrea Catoptera.* Nob. *Fronds* 2-pinnatifid; *pinnæ* stalked, distant, erect, oblong-lanceolate sharp-pointed; *pinnules* oblong, the lower ones blunt, deeply pinnatifid; *segments* ovato-oblong, subfalcate, obtuse sinuato-subdentate,

* Very curious leaflike appendages issue luxuriantly from the base of the stipes in this species. They are flaccid 3-pinnate *abortive fronds* six or eight inches in length. Their pellucid membranaceous *pinnæ* are dichotomously branched, and their narrow, linear acute lobes, forked, or irregularly split. Their appearance is that of a parasitical *Trichomanes* in its barren state; and they were described erroneously as Trichomanes incisum, by Thunberg, and as T. cormophilum, by Kaulfuss.

downy on both sides; the basal-one triangular, wedge-shaped, decurrent. *Sori* sub-marginal; *rachis* and *stipes* downy. *Aspidium catopteron.* Kze. Linnæa., vol. 10, p. 550.

In the forests between Omzamcaba and Omzamwoobo, also at Koratra, Natal. (Drege. Gueinzius.) *v. s*

10. *Lastrea inæqualis.* Presl. *Fronds* 2-pinnate, smooth; *pinnæ* confluent and pinnatifid at the apex, bipinnatifid at the base; *pinnules* oval, obtuse, obliquely cuneate, inciso-dentate and pinnatifid. *Sori* solitary, distant. *Stipes* and *rachis* somewhat scaly; *rhizome* thick, creeping. *Aspidium inæquale.* Schlecht. l. c., p. 23, Tab. 12.

Moist and shady spots on Devil's Mount; at Hottentot's Holland, Swellendam (Voormansbosch), British Kaffraria, Natal, &c.—*v. v.* and *s.*

11. *Lastrea spinulosa.* Presl. *Fronds* 2-pinnate, erect, oblong-lanceolate; *pinn* elongated, oblique, opposite; *pinnules* oblong, acute, decurrent, inciso-serrate or pinnatifid, with sharp-toothed lobes. *Sori* round in a double row. *Stipes* slightly scaly.—*Aspidium spinulosum.* Sw. Schkuhr. Filic. T. 48.

In shady rocky localities in the Du Toit's Kloof, Swellendam. (Drege.)

12. *Lastrea pentagona.* Moore. *Fronds* 2-pinnate coriaceous, smooth, ovato-pentagonal; *pinn* acuminate, the lower pairs triangular, unequal-sided; the *inferior pinnules* of the lowest pinnæ longest, pinnate with distant oblong-obtuse, duplicato-serrate decurrent secondary pinnules, with mucronate teeth; the *superior pinnules* and those of the upper part of the frond pinnatifid, with oblong mucronato-serrate lobes. *Sori* distinct, forming two lines near the mid-vein on the pinnules; *stipes* and *rachises* scaly.—Moore, p. 227. In Hook. Journ. of Botan., and K. G. Miscellany, vol. 5.

In ravines and moist places near the Umvoti, Natal (Plant.)

* 13. *Lastrea athamantica.* Nob. *Fronds* 3-pinnate coriaceous, lanceolate, smooth, *pinn* stalked, oblong, acuminate. *Primary pinnules* sessile, ovato-oblong cuneate, at base decurrent; *secondary* falcate, blunt, veiny. *Sori* round, solitary. *Stipes* short, erect, flexuose, covered at base with long linear deciduous scales. *Aspidium athamanticum.* Kze. Linnæa, vol. 18, p. 123. *Lastrea Plantii* Moore in Hook. Journ. of Botan., etc., vol. 5, p. 226.

On grassy hills and in boggy localities at Natal (Gueinzius), and in deserted holes of the jackal near Moore River, Natal (Plant.) *v. s.*

The natives, who call this fern *Umkomo-Komo,* use its root-stock as a vermifuge, especially for the cure of the tape-worm.

VI. OLEANDRA. CAV. (1 Species.)

14. *Oleandra articulata.* Presl. *Fronds* simple, entire, lanceolate, acuminate, membranaceous; *Sori* round, scattered. *Stipes* short, nodose, articulated; *rhizome* horizontally creeping, climbing, clothed with numerous awl-shaped imbricated scales, which have a black spot at their bases. *Aspidium articulatum.* Sw. Kunze Linnæa, vol. 18, p. 123.

Climbing rocks in woody ravines in the Magalisberg (Zeyher), and in similar localities at Natal. (Gueinzius) *v. s.*

VII. NEPHRODIUM. SCHOTT. (2 Species.)

* 15. *Nephrodium Ecklonianum.* Nob. *Frond* pinnate, lanceolate, coriaceous; the *lower pinnæ* distant, almost opposite, the *upper ones* alternate, approximate; all shortly stalked, lanceolate, sharp-pointed, inciso-pinnatifid, bearing small scattered resinous dots on the under surface; *segments* ovate, subfalcate, rounded; *costæ* slightly scaly beneath, channelled above, and as well as the angular *rachis* downy. *Sori* nearly marginal, continuous; *involucre* smooth. *Stipes* long, smooth; *root-stock* covered with brown scales. *Aspidium Ecklonii.* Kze. Linnæa, vol. 10, p. 546.

Amongst bushes near Brandvalley (Worcester), at the Zwartkops River (Uitenhage), Van Staden's River, the Knysna, &c., also at Natal. (Plant) *v. s.*

* 16. *Nephrodium Plantianum.* Nob. (New Species.) *Frond* pinnate, oblong-lanceolate, coriaceous; *pinnæ* shortly stalked, alternate, approximate, erect patent, lance-shaped, pinnatifid, smooth; *segments* ovate, obtuse, notched; *stipes* and *rachis* angular, naked.

In the dense forests of Natal. (Plant No. 341) *v. s.*

VIII. POLYSTICHUM. SCHOTT. (4 Species.)

17. *Polystichum pungens.* Presl. *Frond* 2-pinnate; *pinnules* oblong-ovate, obliquely cuneate, auricled, subfalcate, acute, doubly inciso-dentate, teeth mucronate. *Sori* irregularly scattered. *Stipes* and *rachises* scaly. *Aspidium pungens.* Kaulf. Schlecht, l. c., p. 21, Tab. 10.

Common in shady moist places throughout the Colony. *v. v.* and *s.*

* 18. *Polystichum luctuosum.* Nob. *Frond* 2-pinnate. lance-shaped, coriaceous, smooth; *pinnæ* alternate, stalked, patent, erect, lanceolate acute, pinnate, pinnatifid at the apex; *pinnules* ovate-trapeziform subfalcate, aristato-serrate, mucronate, eared at base. *Sori* small; *stipes* and *rachises* clothed with blackish scales. *Aspidium luctuosum.* Kze., vol. 10, p. 548.

On the wood-clad mountains near Philipstown, Kat River (Bartels, Ecklon, and Zeyher), in the forests of British Kaffraria. (Captain Espinasse) *v. s.*

19. *Polystichum angulare.* Presl. *Frond* 2-3-pinnate, rigid, coriaceous, acuminate, glossy above, paler beneath; *pinnæ* alternate, distant, stalked, spreading, linear-lanceolate, acute, pinnate, pinnatifid at the apex, perfectly smooth; *pinnules* alternate oblong-lanceolate deeply incised, sharp-pointed, cuneate at the base, the lowermost lobe or segment 3-4 toothed, largest, cared. *Sori* small, solitary in the axils of the indentations. *Rachises* and the angular-furrowed *stipes* fringed sparingly with short scales. *Aspidium angulare.* Kitaibl.

In swamps near the Natal coast. (Gueinzius. Plant.) *v. s.*

20. *Polystichum coriaceum.* Schott. *Fronds* 3-pinnate, coriaceous; *pinnules* ovate, wedge-shaped at the base, bluntly serrate, smooth; lower-ones pinnatifid, upper ones confluent. *Sori* solitary, placed near the bases of the serratures. *Stipes* and margined *rachises* glabrous; *rhizome* thick, horizontally creeping, clothed with broad ferruginous scales. *Aspidium coriaceum.* Sw. Schkuhr, Filic., Tab. 50.

Common in moist woody localities all over the Colony, as well as in the forests of Kaffraria and Natal.—*v. v.* and *s.*

IX. CYRTOMIUM. PRESL. (1 Species.)

21. *Cyrtomium falcatum.* Presl. *Fronds* pinnate, smooth coriaceous; *pinnæ* shortly stalked, alternate, broad ovate, rounded at the base, falcate, acuminate, distant, blunt, repando-crenate or serrate, the terminal one tri-lobed; *sori* globose, copious, scattered. *Stipes* scaly. *Aspidium falcatum.* Sw.

In the aboriginal forests of British Kaffraria. (Captain Espinasse, 1856.) *v. s.*

X. DIDYMOCHLÆNA. DESV. (1 Species.)

22. *Didymochlæna dimidiata.* Kze. *Frond* 2-pinnate, coriaceous; *pinnæ* approximate stalked, oblong-lanceolate, patent, erect; *pinnules* dimidiate obliquely ovate; the superior margin sinuato-crenate, revolute, soriferous; the inferior one entire, here and there bristly along the costa. *Stipes* and *rachises*, fringed with ferruginous scales.—Linnæa, vol. 18, p. 122, Kunze Supplem. to Schkuhr's, Filic., T. 84.

In moist shady ravines near the great cataract between the Omfondi and Togela Rivers, Natal. (Gueinzius.) *v. s.*

IV. ASPLENIACEÆ. Presl.

XI. CYSTOPTERIS. BERNH. (1 Species.)

23. *Cystopteris fragilis.* Bernh. *Fronds* lanceolate 2-pinnate, slender, smooth. *Pinnæ* ovate or lanceolate, toothed, lobed or pinnatifid. *Segments* more or less acute, entire or much dentate. *Sori* scattered, often crowded and almost confluent. *Rachis* winged. *Stipes* glabrous, scaly at base. Hook. Spec. Filic., vol. 1, p. 197. *Aspidium fragile.* Sw. Schkuhr. Icon. Filic. tables 54, 56.

In shady places on the Kat River mountains. (Ecklon.) *v. s.*

XII. ATHYRIUM. ROTH. (1 Species.)

* 24. *Athyrium laxum.* Nob. (N. sp.) *Fronds* 2-pinnate, flaccid, membranaceous. *Pinnæ* alternate remote, ovate-lanceolate acuminate, smooth. *Pinnules* ovate-oblong, pinnatifid; their *segments* incised, serrate, acute. *Sori* round. *Rachises* flexuose, somewhat margined. *Stipes* long, chaffy only at the base.

In woods and shady places at Natal. (Gueinzius.) *v. s.*

XIII. BLECHNUM. LIN. (2 Species.)

25. *Blechnum radiatum.* Presl. *Fronds* much divided, radiating, stiff. *Segments* linear, erect, dichotomous, toothed at the apex, perfectly smooth. *Stipites* clustered, much longer than the fronds. *Rhizome* short, scaly at the base, *roots* fibrous. *Adiantum radiatum.* Kœnig. *Acropteris radiata.* Link.

On rocks at the Magalisberg (Zeyher), and in Griqualand. (Mr. Robt Moffatt.) *v. s.*

* 26. *Blechnum Atherstoni.* Nob. (N. sp.) *Frond* pinnate, coriaceous. *Pinnæ* alternate, rigid, sessile, sub-auriculate cordate, linear-lanceolate, acute, slightly waved at the margins. *Lower pinnæ* remote. *Stipes* and glabrous *rachis* destitute of scales.

This species much resembles and stands close to Blechnum cartilagineum. Sw.

On the southwest of Graham's Town, near the blockhouse. (Dr. Atherstone, 1856.) *v. s.*

XIV. ASPLENIUM. LIN. (28 Species.)

27. *Asplenium gemmiferum.* Schrad. *Fronds* pinnate, smooth, membranaceous, often gemmiferous towards the apex. *Pinnæ* alternate stalked, lanceolate ovate, elongated, acute, crenate or sub-serrate, obliquely cuneate and decurrent at base. *Sori* oblong distant. *Stipes* channelled above and

scaly below. *Caudex* paleaceous. *Roots* densely clothed with ferrugineous shag. *Asplenium lucidum.* Schlecht. (not Forster), Adumbr., p. 25, table 14, f. 1.

In the dense forests of the Knysna, Tsitzikamma, and near the great cataract of the Omzamcaba River (Natal) *v. s.*

28. *Asplenium Prionites.* Kze. *Fronds* pinnate, ovate, oblong, coriaceous. *Pinnæ* alternate, stalked, patent, lanceolate, acuminate, cuneate at the base, sharply and unequally toothed, glabrous; the lowermost shorter, smaller, almost auricled. *Sori* oblong, cushioned, often irregular. *Stipes* angular; *rachis* winged at the apex, and both of them scaly. *Rhizome* creeping. Linnæa, vol. 10, p. 511.

In Blockhouse-kloof, near Graham's Town (Dr. Atherstone), and in the forests of Natal. (Drege, Gueinzius.) *v. s.*

* 29. *Asplenium discolor.* Nob. (N. sp.) *Fronds* pinnate lanceolate, elongated, acuminate, membranaceous smooth, sometimes gemmiferous. *Pinnæ* alternate, remote, stalked, patent, spreading, oblong-lanceolate, acute, sub-pinnatifid, dark green above, paler beneath, cuneate at base. *Segments* confluent at the apex, wedge-shaped, obtuse, 2-crenate recurved, the lowermost remote, decurrent, almost auricled. *Sori* linear-oblong. The channelled *stipes* and flexuose marginate *rachises* sparingly scaly. *Asplenium lucidum.* Schlecht., var. b. Adumbr., table 14, f. b.

In the forests of the Knysna (Miss Dalgairns), Albany (Dr. Atherstone), and in the mountain-woods near Philipstown, Kat River. (Ecklon and Zeyher.) *v. s.*

30. *Asplenium anisophyllum.* Kze. *Fronds* pinnate, linear-lanceolate, membranaceous. *Pinnæ* nearly opposite, smaller at both ends, ovate-lanceolate, acuminate, bluntly serrate and incised, upwardly truncate with an unequal base, wedge-shaped below, decurrent. *Sori* elliptical, scattered. *Stipes* and winged *rachis* scaly. Linnæa., vol. 10, p. 511.

In shady mountains near the fountains of the Kat River (Ecklon and Zeyher), in British Kaffraria (Capt. Espinasse), and near the great cataract between the Omzamwoobo and Omzamcaba Rivers, Natal. (Drege.) *v s.*

31. *Asplenium brachyotus.* Kze. *Fronds* pinnate, lanceolate, acuminate, membranaceous. *Pinnæ* stalked lanceolate, more or less falcate, blunt, irregularly and obtusely 2-serrate, sub-auricled and truncate at the base. *Sori* oblong. The slender *stipes*, as well as the *rachises*, downy. *Rhizome* naked. Linnæa., vol. 10, p. 512.

Found in the same localities with the former. (Drege. Gueinzius.) *v. s.*

32. *Asplenium protensum.* Schrad. *Fronds* pinnate, erect, coriaceous. *Pinnæ* alternate, distant, patent, linear-lanceolate, acuminate, pinnatifid, unequally cuneate at base. *Segments* remote, oblong, obtuse, 2-3-toothed; the lowermost broadest, incised, nearly auricled. *Sori* numerous, oblong, at length confluent. *Stipes* and the under side of the *fronds* downy. Schlecht., Adumb., p. 20, tab. 16.

Near rivulets in the forests of the Knysna and the Dœkamma; near Graham's Town (Dr. Atherstone); also at Natal. *v. s.*

33. *Asplenium erectum.* Bory. *Fronds* pinnate, membranaceous. *Pinnæ* shortly stalked, lanceolate, sub-falcate, acuminate, bluntly serrate. *Upper pinnæ* cuneate with an unequal base, and auricled on the upper edge; lowermost remote, eared at both ends. *Sori* solitary, placed close to the costa *Stipes* margined, glossy, smooth. Schlecht., Adumbr., p. 28, table 15.

Common in moist, shady, rocky localities throughout the whole colony. *v. v* and *s.*

* 34 *Asplenium Zeyheri.* Nob. (N. sp.) *Fronds* pinnate, membranaceous smooth. *Pinnæ* shortly petioled, alternate, sub-falcate, oblong-ovate, bluntly incised, cuneate at the base. *Segments* obtusely crenate; the lowermost remote, erect, ob-ovate, cuneate, rounded, notched, auricled. *Sori* elliptical, irregular, distant. *Rachis* and channeled *stipes* not margined, glabrous. *Asplenium polymorphum.* Eckl. and Zeyh. Herb. (Asplenii erecti var. Kze, Linnæa, vol. 10, p. 513, in note.

Amongst rocks, and in shady ravines, Uitenhage (Dr. Rubidge), near Philipstown, Kat River (Eckl. and Zeyh.) *v. s.*

35. *Asplenium lunulatum.* Sw. *Fronds* pinnate, slender, curved. *Pinnæ* alternate, sub-sessile, patent, oblong-ovate, more or less falcate, blunt, notched, confluent at the apex, truncate and auricled at the base. *Sori* oblong, numerous. *Stipes* and *rachises* margined. Kze. Linnæa, vol. 10, p. 514.

In the woods near Uitenhage (Eckl. and Zeyh.); also at Kat River and Natal. (Drege.) *v s.*

36. *Asplenium monanthemum.* Smth. *Fronds* pinnate, linear lanceolate, erect, smooth. *Pinnæ* oblong-trapeziform, sessile, blunt, truncate at the lower base; apex and upper margin crenate-serrate. *Sori* generally solitary, linear, submarginal. *Stipes* almost quadrangular, and, as well as the *rachis* black, polished. *Rhizome* tufted. J. E. Smith, Plant. Icon. inedit., tab. 73.

Common in shady places in many parts of the colony. *v. v.* and *s.*

37. *Asplenium ebeneum.* Ait. *Fronds* pinnate, smooth, linear

lanceolate. *Pinnæ* sessile, oblong, obtuse; upper ones auricled, bluntly crenate at the margin; *lower pinnæ* cordate, hastate. *Sori* oblong, approximate. *Stipes* and *rachis* smooth, ebenous, glossy. *Rhizome* creeping. *Roots* fibrous.

In the forests of the Krakakamma, Uitenhage. (Eckl. and Zeyh.) *v. s.*

38. *Asplenium Trichomanes.* Lin. *Fronds* pinnate, slender, smooth. *Pinnæ* irregularly oblong-ovate, crenate, truncate and cuneate at the base, and obtuse at the apex. *Sori* linear, at length confluent, and placed in a single row on each side of the costa. *Stipes* and *rachis* purplish-black, glossy. Schkuhr., Filic., t. 74.

In rocky, shady places in the Du Toit's Kloof, Swellendam (Drege); in the Winterberg, Kaffraria. (Eckl. and Zeyher.) *v. s.*

39. *Asplenium dentatum.* Lin. *Fronds* pinnate, glabrous; *pinnæ* obovate-oblong, blunt, unequally cuneate and attenuate at base; irregularly and obsoletely toothed on the margins. Willd. Spec. Plant. vol. 5, p. 324.

Among rocks on the mountains of the Bosjesmansrand, Natal. (Dr. F. Krauss.)

40. *Asplenium præmorsum.* Sw. *Fronds* 2-pinnate, subcoriaceous; *pinnæ* pinnate, stalked, patent; *pinnules* alternate, oblong-cuneate, truncate, the extreme-one elongated, trifid, the lowermost erect, lobed, auricled, all of them inciso-serrate, striated. *Sori* linear; *rachises* flexuose, not margined; *stipes* channelled purple, fringed here and there with short downy scales. *Caudex* creeping, paleaceous; *roots* fibrous. Schkuhr. Filic., t. 29, fig. 1.

In the forests of the Tzitsikamma, Uitenhage. (Dr. Krauss) at Natal. (Gueinzius) *v. s.*

41. *Asplenium furcatum.* Thbg. *Fronds* 2-pinnate; *pinnæ* lanceolate attenuated at the apex; *pinnules* distant, cuneate-lanceolate 3-fid and pinnatifid; *segments* inciso-serrate. *Sori* linear, confluent. *Stipes* and *rachis* clothed below with scaly down. *Caudex* thickly paleaceous; *rhizome* creeping.

Very variable in its forms, some of which have been described as distinct species.

In woods and shady localities; very common within the Colony and Natal. *v. v. s.*

42. *Asplenium fimbriatum.* Kze. *Fronds* sub-2-pinnate, membranaceous, oblong, smooth; *pinnæ* distant, stalked, ovate-rhomboidal; *pinnules* obovate-cuneate, with a cartilaginous edge, and elevated veins on the upper surface, incised and lobed at the apex; *segments* curved, apiculate; *involucres*

membranaceous ; *sori* confluent ; *rachises* and short *stipes* purplish ; *rhizome* tufted, paleaceous. Kunze. Linnæa., vol. 18, p. 117.

On rocks in the woods between the Omfondi and Togela Rivers, Natal. (Gueinzius.) *v. s.*

43. *Asplenium cuneatum.* Lam. *Fronds* 2-pinnate, membranaceous, smooth ; *pinnæ* stalked, pinnate alternate ; *pinnules* obovate-cuneate, blunt, unequally inciso-serrate, striate, auricled at base; *rachis* margined at its upper extremity. *Sori* linear, often confluent. Willd. Spec. Plant., vol. 5, p. 344.

Special colonial locality unknown, though found by Ecklon and Zeyher ; in the forests of Natal (Plant.); Blockhouse Kloof near Graham's Town (Dr. Atherstone) Kat River (Capt. Espinage.) *v s.*

44. *Asplenium solidum.* Kze. *Fronds* sub-2-pinnatifid, lanceolate coriaceous, smooth, glossy; *pinnæ* lanceolate-ovate, attenuated ; *pinnules* and *segments* wedge-shaped, incised, armed with pungent teeth. *Sori* convex scattered. The margined *rachis* and furrowed *stipes* glabrous. *Caudex* creeping scaly. Kze. Linnæa, vol. 10, p. 520.

In vicinity of Algoa Bay (Forbes), on mountains near Ruigtevalley, amongst shrubs (Drege); near Alice, (Mrs. Stewart) *v. s.*

45. *Aplenium splendens.* Kze. *Fronds* 2-pinnate, ovate, acuminated; *pinnæ* lanceolate, sharp-pointed, alternate remote, stalked; lower *pinnules* ovate-rhomboidal, cuneate at base, crenato dentate, more or less lobed and rounded at the apex; *terminal-one* elongated incised ; all of them veiny ; smooth and glossy above, clothed here and there with blackish scales at the underside. *Sori* irregular, linear ; base of the *stipes* and the *rachis* paleaceous. *Caudex* creeping. Linnæa, vol. 10, p. 516.

In the woods of the Krakakamma and Kat River. (Ecklon and Zeyher) at Natal. (Plant.) *v. s.*

46. *Asplenium Adiantum nigrum.* Lin. *Fronds* 2-3-pinnate coriaceous, glossy; upper *pinnæ* pinnatifid, uppermost confluent, lower ones 2-pinnatifid ; *segments* obliquely cuneate, acutely toothed. *Sori* linear elongate, at length confluent. *Stipes* purple, ebenous. *Caudex* thick tufted. Schlecht. Adumb. p. 31, Tab. 17. A. *argutum* Bory.

On walls, amongst rocks, &c., in many parts of the Colony.— *v. v.* and *s.*

47. *Asplenium aspidioides.* Schlecht. *Fronds* 2-3-pinnate smooth ; *pinnæ* stalked, patent, lanceolate ; *pinnules* ovate lanceolate, pointed, wedge-shaped and pinnatifid at the base ; *segments* more or less 2-dentate. *Sori* solitary, oblong ;

rachises and the angular, striped *stipes* scaly. Schlecht. Adumbr., p. 24, t. 13.

Within the Colony, at places unknown. (Bergius. Mundt.) and in a swampy forest near Port Natal. (Gueinzius.)

* 48. *Asplenium lobatum.* Nob., n. sp. *Fronds* 2-pinnate, membranaceous; *pinnæ* alternate, shortly stalked, ovate-oblong, obtuse; *pinnules* obovate-cuneate, inciso-crenate, the basal-one broader, remote, 3-lobed. *Sori* oblong-ovate, confluent; *rachises* margined, smooth; *stipes* slightly scaly.

In woods of British Kaffraria (Captain Espinasse), Albany (Mr. Hutton and Dr. Atherstone), in the Tzitsikamma (Dr. Rubidge.) *v. s.*

* 49. *Asplenium gracile.* Nob. n. sp. *Fronds* 2-pinnate, membranaceous, smooth; *pinnæ* alternate, stalked, patent, ovate-oblong, rounded at the apex; *pinnules* obovate-cuneate decurrent, bluntly incised, *upper-ones* confluent, *lowermost* broader, auricled, stalked. *Sori* solitary, remote, irregular, elliptical. The channelled *stipes* and flexuose winged *rachises* perfectly naked

In the primæval forests of Natal. (Gueinzius.) *v. s.*

50. *Asplenium Dregeanum.* Kze. *Fronds* pinnate linear-lanceolate, acute, membranaceous, smooth; *pinnæ* alternate short-stalked, obliquely sub-ovate blunt, those of the *apex* smaller, cuneate-obovate; all of them truncate and more or less auricled at the upper, quite entire at the lower base; inciso-pinnatifid at top and the upper margin; *segments* oblong, rounded, incised, the lowermost wedge-shaped, 2-3-fid. *Sori* solitary; *stipes* short; *rachis* partly flexuose, sub-margined, scaly. *Caudex* creeping. Kze. Linnæa, vol. 10, p. 517. Suppl. to Schkuhr, Tab. 27.

In a shady valley on a cataract near the Omzamcaba River, Natal. (Drege) *v. s.*

51. *Asplenium Thunbergii.* Kze. *Fronds* pinnate, linear-lanceolate acuminated, membranaceous; *pinnæ* alternate, ovate-oblong, deeply pinnatifid, erect, somewhat curved, blunt; *segments* oblong-cuneate, entire; lower ones 2-fid; lowermost broad lobed. *Sori* solitary, linear-oblong, sub-marginal; *stipes* short, channelled; *rachis* margined. Kze. Linnæa, vol. 10, p. 517. *Cænopteris auriculata* Thbg. *Darea auriculata* Willd.

In forests at Natal. (Gueinzius.) *v. s.*

52. *Asplenium Odontites.* R. Br. *Frond* pinnate; *pinnæ* alternate, lanceolate, acuminated, pinnatifid; *segments* remote, linear lanceolate, acute; the inferior ones 2-fid. *Sori* sub-

marginal. R. Brown. Prodrom. Flor. Nov. Holland, p. 151. *Cœnopteris Odontites.* Thbg. Schkuhr. Filic., tab. 82.

Found by Thunberg; locality not recorded.

53. *Asplenium stans.* Kze. *Frond* 2-pinnate, glabrous; *pinnæ* deeply pinnatifid, almost opposite; *segments* spathulate-linear, obtuse, lower ones 2-partite. *Sori* sub-marginal; *rachis* winged. *Stipes* compressed, nearly 4-angular, smooth, *Caudex* sub-globose, clothed with stiff, acute, imbricated, blackish-brown scales. Kunze. Linnæa., vol. 10, p. 521. *Cœnopteris furcata.* Berg. *Darea stans.* Bory.

In the forests of Swellendam, George, Uitenhage, and Kaffraria. *v. s*

54. *Asplenium rutæfolium.* Kze. *Fronds* 2-pinnate, smooth; *pinnæ* and *pinnulæ* alternate, remote; the inferior *pinnulæ* deeply pinnatifid; the middle ones 2-3-partite; terminal ones simple; *segments* linear, obtuse. *Sori* sub-marginal; *rachis* not winged. *Stipes* compressed, glabrous. *Caudex* paleaceous. Kze. Linnæa., vol. 10, p. 521. *Cœnopteris rutæfolia.* Berg. *Darea rutæfolia.* Willd.

In the forests of Swellendam, George, Uitenhage, and Natal. *v. s.*

XV. CETERACH. WILLD. (3 Species.)

55. *Ceterach officinarum.* Willd. *Fronds* pinnatifid; the *segments* oblong, obtuse, thickly covered at the underside with entire, rufous scales. Willd. Spec. Plant., vol. 5, p. 136. Schkuhr. Filic. tab. 7, f. b.

In crevices of rocks near the Baviaan's River. (Krebs.)

56. *Ceterach capensis.* Kze. *Fronds* pinnate or pinnatifid, oblong, obtuse; the *pinnæ* and *segments* decurrent, ovate oblong, blunt, crenate, incised, sub-cordate at the auricled base, and clothed beneath (as well as the flexuose *rachis* and the *stipes*) with rufous scales. Kze. Linnæa, vol. 10, p. 496. *Gymnogramme cordata.* Hook. & Grev. Icon. Filic, tab. 156.

On rocks and walls near Cape Town; also at the entrance of the forests near Olifant's Hoek and Bushman's River (Uitenhage); at the stems of old trees in Albany; at the Kat River, etc. *v. v.* and *s.*

57. *Ceterach cordata.* Kze. *Fronds* pinnate; *pinnæ* sessile, cordate, oblong, crenate or lobed, paleaceous beneath; the *inferior pinnæ* small, more remote; *lobes* rounded, crenate-dentate. Kze. Linnæa., vol. 10, p. 497. *Gymnogramme cordata.* Schlecht. Adumbr. p. 16.

Amongst rocks in almost all parts of South Africa. *v. v* and *s.*

XVI. SCOLOPENDRIUM. SM. (1 species).

58. *Scolopendrium Krebsii.* Kze. *Fronds* coriaceous, lanceolate, acuminate pinnate. *Pinnæ* sessile, cordate, and auricled at base, lanceolate, acute, falcate, margined, and reflexed at the margin; *lower pinnæ* smaller, ovate; *terminal-ones* confluent. *Involucres* and *sori* oblique, placed near the mid-rib. *Stipes* short, angular, scaly at its base. *Rhizome* horizontally creeping, paleaceous. Kunze Linnæa, vol. 18, p. 119. Suppl. to Schkuhr, Filic., tab. 74.

In moist, shady places, and between rocks, near Graham's Town (Krebs. & Dr. Atherstone); in the forests of Natal (Gueinzius) *v. s.*

V. DAVALLIACEÆ. GAUDICH.

XVII. MICROLEPIA. PRESL. (1 species.)

59. *Microlepia polypodioides.* Presl. *Fronds* ovate or deltoid, acuminate, 3-pinnate, flaccid, more or less hairy or downy, especially on the veins and costæ beneath. Primary *pinnæ* and lower secondary ones acuminate, distant. *Pinnules* oblong or rhomboid, lanceolate, blunt, deeply pinnatifid. *Lobes* ovate or ob-ovate, entire or irregularly inciso-lobate, or again pinnatifid, sub-obliquc, very obtuse. *Sori* large usually solitary on the entire lobes, several, on the pinnatifid-ones, and in the sinuses within the margin. *Involucres* small, half cup-shaped, smooth. *Rachis* downy on the underside. Hook. Spec. Filic., vol. 1, p. 181. *Davallia polypodioides.* Don.

In the forests of the Magalisberg. (Zeyher.) *v. s.*

XVIII. DAVALLIA. SM. (2 Species.)

60. *Davallia nitidula.* Kze. *Fronds* triangular sub-coriaceous, nearly glabrous, paler beneath, sub-3-partite, 3-pinnate; *pinnæ* alternate, stalked, patent, ovate, pointed, slightly curved; *lowermost* remote, nearly opposite; *secondary pinnules* from a cuneate base unequally ovate, obtuse, pinnatifid or incised; *segments* cuneate-oblong, retuse or sub-marginate, and sub-incised at the apex, bearing *sori; involucre* obovate, truncate; *rachis* and *stipes* flexuose, glabrous; *caudex* creeping, chaffy. Kunze. Linnæa., vol. 10, p. 545. Suppl. to Schkhr. Filic., tab. 75, f, 2. Hook. Spec. Filic., vol. 1, p. 165, tab. 44, f. A.

In shady and rocky localities at Natal. (Drege Gueinzius.) *v. s.*

61. *Davallia concinna.* Schrad. *Fronds* lanceolate-oblong, obtuse, curved, coriaceous, glabrous above, clothed beneath with scattered brown scales, more or less deeply pinnate-pinnatifid; *pinnæ* alternate, patent, ovate-cuneate at base;

segments linear-spathulate, curved, margined; *margin* thickened, reflexed, retuse, 2 or 3 fid; *sori* and *involucres* semi-orbicular; *rachis* flattened, costate, margined; *stipes* short, ascending; *caudex* creeping, densely covered with brown, rigid scales. Hook. Spec. Fil., p. 193 *D. campyloptera.* Kunze. Linnæa., vol. 10, p. 544. Suppl. to Schkuhr. Filic., tab. 75, f. 1.

On the trunks of old trees in Plettenberg's Bay, George (Drege.), and in Blockhouse Kloof, Albany (Dr. Atherstone.)

XIX. LINDSÆA. DRYAND. (1 species.)

62. *Lindsœa ensifolia.* Sw. Firm and rigid. *Caudex* very short, creeping. *Stipes* (as well as the *rachis*) glabrous, as long as, or longer than the *pinnatid frond.* *Pinnæ* 5-13 linear-ensiform or lanceolate, patent, erect, sub-membranaceous; *sterile ones* sub-serrate; *veins* reticulated. *Sorus* continuous round the margin. Hook. Spec. Filic., vol. 1, p. 220. *Lindsœa membranacea.* Kze. Linnæa, vol. 18, p. 121. *Schizoloma ensifolium.* I. Smith.

At the base of high trees in the forests of Natal. (Gueinzius.) *v. s.*

VI. ADIANTACEÆ. PRESL.

XX. PTERIS. LIN. (5 Species.)

63. *Pteris pedata.* Willd. *Fronds* deeply lobed, pedate, coriaceous, smooth, dark green above. *Lobes* pinnatifid, acute; lateral ones parted in two, the lowermost reflexed. *Stipes* round, slightly pubescent at base, and, as well as the *rachises*, ebenous, glossy. *Rhizome* descendent. *Roots* fibrous. Willd. Sp. Plantar., vol. 5, p. 358.

Near Tomacha-post (Kaffraria), and along the sources of the Kat River (Eckl. & Zeyher); also at Natal. (Gueinzius.) *v. s.* Presl refers this to *Litobrachia*; but none of the South African specimens we have seen, show the venation of that genus.

64. *Pteris cretica.* Lin. *Fronds* either ternate or pinnate, glabrous. *Pinnæ* opposite acuminate; the lower ones more or less stalked, often 2-fid; middle ones confluent, sub-decurrent; *terminal pinna* lanceolate 3-fid; *sterile pinnæ* lanceolate, serrate at the sub-cartilaginous edge; *fertile ones* linear, entire. *Caudex* destitute of scales. Schlecht. Adumb., p. 40. Schkuhr. Filic., tab. 90. *Pteris Serraria.* Sw.

On the wood-clad mountains of Swellendam, George, and Uitenhage, at the Kat River, in the Winterberg, and at Natal. *v s.*

65. *Pteris arguta.* Sw. *Fronds* 2-pinnatifid, glabrous; *pinnæ* pinnatifid, lanceolate-ovate, falcate, acuminate, patent; *upper ones* sessile, somewhat decurrent; *lower ones* stalked; *segments* lanceolate-oblong, sub-falcate, acutely serrate at the

apex; *basal ones* irregularly 3-4-lobed. *Sori* placed at the inferior half of the *segments* below the serratures; *margin* of *involucre* entire; *rachises* and *stipes* naked, very smooth. Schlecht. Adumb. p. 43. *Pteris flabellulata.* Thbg. (?)

In shady mountain localities; common in all parts of the colony, as well as at Natal. *c. v.* and *s.*

66. *Pteris catoptera.* Kze. *Fronds* pinnate, membranaceous, smooth, somewhat pale on the under surface; *pinnæ* sub-sessile; *segments* confluent (bearing short, stipule-like spines on the mid-rib of the upper side), oblong-linear, blunt, entire; *rachises, ribs,* and *stipes* glabrous, straw-coloured. Kze. Linnæa., vol. 18, p. 119. *Pteris biaurita.* Kze. Linnæa., vol. 10, p. 436.

In the forests of Natal (Drege, Gueinzius); at the Magalisberg. (Zeyher.) *v. s.*

67. *Pteris incisa.* Thbg. *Fronds* 2-pinnate, membranaceous, glabrous; *pinnæ* opposite, sessile, many-yoked; *pinnules* lanceolate, pale underneath; *lower ones* opposite, pinnatifid; *terminal ones* confluent; *segments* lanceolate-ovate, sinuate or entire; *stipes* round, stramineous. Schlecht. Adumb., p. 44. Thunb. Flora Capens., p. 733.

On the Devil's Mountain near the waterfall; in shady ravines at Hottentots' Holland; in the Du Toit's Kloof, etc. *v. v.* and *s.*

This Fern has not the venation of *Litobrachia,* to which genus it is referred by Presl.

21. LOMARIA. WILLD. (11 Species.)

68. *Lomaria capensis.* Willd. *Fronds* pinnate, membranaceous; *sterile pinnæ* approximate, sessile, obliquely cordate, lanceolate, notched, acuminate, not decurrent, smooth; *fertile ones* linear, crenate, mucronate; *ribs* and *stipes* furrowed, paleaceous. *Caudex* covered with large, broad, lanceolate, acute, ferruginous scales. *Blechnum capense.* Schlecht. Adumb., p. 34 tab. 18.

Common in moist, shady places and near rivulets; on the Table and Devil's Mountains, and in many parts of the colony. *v. v.* and *s.*

69. *Lomaria Boryana.* Willd. *Fronds* pinnate, coriaceous; *sterile pinnæ* alternate, remote, narrow, linear-lanceolate, entire, attenuated; *lower ones* stalked; *upper ones* adnate, cuneate at base, decurrent; all of them smooth and opaque on the upper surface, pale, and clothed with ferruginous scaly wool beneath; *fertile pinnæ* stalked, linear, erect, involute; *rachis* furrowed, very wooly in the upper half;

involucres continuous, rent and articulated at length; *stipes* long, surrounded at its base by awl-shaped, comose, twisted, ferruginous scales. *Blechnum Boryanum.* Schlecht. Adumb., p. 35, tab. 19. *Lomaria coriacea.* Schrad. (not Kze). *Lomaria cinnamomea.* Kaulf. Euum. Filic., p. 153.

In the bushes at the foot of Table Mountain, Kirtenbosch (Bergius); in forests of George (Drege.); Albany (Dr. Atherstone); and Natal (Gueinzius.) *v. s.*

* 70. *Lomaria Dalgairnsiæ.* Nob. (N. sp.) *Fronds* pinnate, membranaceous; *sterile pinnæ* alternate, remote, sessile, lanceolate-oblong, narrowed at both ends, pale beneath, glabrous; *terminal ones* confluent at their bases; *fertile pinnæ* linear, straight, erect, sharp-pointed; *involucres* involvent, lacerato-ciliate; *stipes* and *rachises* clothed with wooly, ferruginous scales.

In the dense forests of the Knysna. (Miss Dalgairns, 1856.) *c. s.*

This appears to be the Fern collected by Drege in the Du Toit's Kloof, and noticed by Kunze (Linnæa, vol. 10, p. 506) as a variety of *L. Boryana.* It does not, however, answer satisfactorily to the short diagnosis, and seems to be distinct.

71. *Lomaria heterophylla.* Desv. *Fronds* pinnate, coriaceous, smooth; *sterile pinnæ* rigid, alternate, broad at base, adnate, linear-lanceolate, acuminate, sub-falcate, entire, patent, glaucous; margin dotted, revolute; *lowermost* small, remote, oblong, cuneate, rounded; *terminal one* often pinnatifid; *fertile pinnæ* narrow, linear, sharp-pointed; *involucres* more or less gnawed; *stipes* and the *creeping caudex* paleaceous. *Blechnum heterophyllum.* Schlecht. Adumb. p. 37, tab. 20 and 22, fig. 1. *Lomaria gigantea* and *L. hamata.* Kaulf., l. c., p. 150.

In the forests of the Krakakamma, Uitenhage, and near the Kat River (Eckl. and Zeyher); in the DuToit's Kloof. (Drege.) *v. s.*

* 72 *Lomaria cycadoides.* Nob. (N. sp.) *Fronds* pinnate, coriaceous; *pinnæ* alternate, remote, erect, sessile, glabrous, auricled at base; *sterile ones* lanceolate, oblong, blunt, very veiny, revolute, glossy, entire, dotted at the margin; *fertile pinnæ* linear-lanceolate, recurved at the apex; *rachises* and angular *stipes* smooth; *caudex* scaly, comose.

In the woods of Natal. (Plant.) *v. s.*

A sterile specimen of the same Fern, from Madagascar, is preserved in Dr. Pappe's collection.

73. *Lomaria attenuata.* Willd. *Sterile fronds* pinnatifid; *segments* lanceolate-oblong, attenuate, acuminate, entire, the *uppermost* elongated; *fertile pinnæ* pinnate; *pinnæ* linear;

involueres torn, denticulated; *caudex* oblique, clothed with long, ferruginous scales. Willd. Spec. Plantar., vol. 5, p. 290. Kze. Linnæa., vol. 18, p. 116.

In shady places at Natal. (Gueinzius)

74. *Lomaria inflexa.* Kze. *Fronds* pinnate, lanceolate, coriaceous, smooth; *sterile pinnæ* adnate, alternate, approximate, patent, somewhat auricled, oblong, falcate, blunt, pale at the underside; *fertile pinnæ* stalked, erect, linear-oblong, obtuse, mucronate, curvato-inflexed; *raehis* purple, paleaceous; *stipes* short, dark-purple, ebenous, surrounded at base by large subulate, lanceolate, brown scales. Kunze. Linnæa., vol. 18, p. 117. Suppl. to Schkuhr's Filic., tab. 65.

In moist places at Natal. (Gueinzius.) *v. s.*

75. *Lomaria punctulata.* Kze. *Fronds* pinnate, glabrous; *sterile pinnæ* alternate, sessile, sub-imbricated, linear-lanceolate, auriculato-cordate, acuminate, sub-falcate, entire, reflexed and dotted at the margins; *lowermost pinnæ* smaller, oblong, obtuse; *fertile pinnæ* patent, remote, linear, mucronate; *stipes* short, scaly at its base. *Blechnum punctulatum.* Schlecht. Adumbr., p. 37, tab. 21 and 22, fig. 2. *Lomaria densa.* Kaulf., l. c., p. 151.

Common in moist, shady places throughout the colony and Natal. *v. v.* and *s.*

76. *Lomaria pumila.* Kaulf. *Fronds* pinnate, smooth; *sterile pinnæ* alternate, sessile, oblong, obtuse, submucronate, auriculato-cordate, scabrous at the margins; *fertile ones* linear-lanceolate, falcate, mucronate; *stipes* short, and at its base, as well as the creeping *caudex* paleaceous. Kaulf. Enum. Filic., p. 151. *Blechnum australe.* Schlecht., p. 38. Schkuhr., Filic., tab. 110, b.

Common between rocks and moist mountainous spots in almost all parts of the colony; also at Natal. *v. v.* and *s.*

77. *Lomaria Spicant.* Desv. *Fronds* pinnate, destitute of scales; *sterile pinnæ* lanceolate, pectinato-pinnatifid; *segments* alternate, linear-lanceolate, rather blunt, entire, somewhat falcated, the *lowermost* rounded, short, remote, *uppermost* confluent; *fertile pinnæ* pinnate; *pinnæ* linear, narrow, acuminate; *involueres* curled; *stipes* scaly at base. *Blechnum boreale.* Lin. Schlecht. Adumb., p. 38. Schkuhr. Filic., tab. 110.

Found somewhere in the colony. (Mr. Riche.)

* 78. *Lomaria decipiens.* Nob. N. sp. (?) *Sterile fronds* deeply pinnatifid, smooth; *segments* alternate, oblong, obtuse,

quite entire; *lower ones* short, rounded; *terminal one* elongated, lanceolate, acuminate; all of them dotted at the margin. *Fertile fronds* unknown.

A puzzling species, and perhaps the juvenile plant of *Lomaria heterophylla*, Desv., but very close also to *L. Spicant*.

Near Graham's Town, parasitical on the caudex of *Alsophila capensis* (Dr. Atherstone), and between crevices of rocks near the mouth of the Klein River, Caledon. (Zeyher.) *v. s.*

(To be continued.)

KAFIRS AND KAFIRLAND—A SETTLER'S STORY.

CHAPTER II.

ADVENTURE.

I HAD been married about two years. Time had sped happily with us, and I was blest twofold,—in not only having the best of all good wives, but in being the father of a bouncing boy of some fourteen months, or thereabouts, who was just able to toddle, and to articulate certain sounds which his mother informed me were good English, though I was myself rather doubtful on the point. Few, if any, trials or mishaps had marked our matrimonial experience, and I had yet to learn to regret the day which saw Annie and myself united.

My wife and I had been married about two years, and, in the early part of the memorable year, 1846, we were leisurely taking our breakfast, just as, I imagine, most other families do,—when I resolved to disclose a project I had had for a long time hatching in my head, but which I was afraid would not altogether meet with the approbation of my better half. Trusting, however, to my rather effective powers of persuasion, I determined to make the attempt—so, looking up from my much-loved newspaper, I said—

"Annie, I want to tell you something."

"Well tell it, who hinders you?"

"I wanted to tell you a plan I have been thinking of,"

"By all means," said she, looking slightly surprised.

"How remarkably fine the weather is now."

"Well, we know that, but what has that got to do with your plan."

"Why," replied I, "how pleasant it would be for traveling."

"Oh! that's it, is it?" said Annie, as she perceived the drift of my remarks,—whereupon I unfolded the scheme I had in view, which was nothing less than that we should take a wagon-trip, of some months, through Graham's Town, into the heart of Kaffraria, to Mr. K.'s station, a missionary with whom we were well

acquainted. To this proposition I met, of course, with many objections, chiefly those fears which the female imagination is so prone to conjure up. I had to combat successively with—the rivers, the bad roads, the steep hills, wild beasts, and, worse than all, *the Kafirs,* all which obstacles, however, I eventually overcame; and my wife became, at last, as enthusiastic respecting the trip as myself.

Behold us then, reader, on the road, occupying two wagons and accompanied by horses, servants, guns, and all the et ceteras which are indispensable adjuncts to such a journey. Behold us about to encounter the unknown perils and dangers of a Kaffrarian wilderness, towards the commencement of the year 1846.

I will not weary the reader by a tedious account of the various mishaps which, as usual, befel us on the first part of that memorable journey,—of the oxen lost, the trektouws broken, the stick-fasts, and similar unpleasantnesses familiar to all who have had any experience of South African wagon traveling,—but I shall carry him at once to K—ville, where we rested some weeks.

During our stay in Grahamstown, and ever since, rumours had been afloat of Kafir disturbances, robberies, and occasional murders; but as these were of periodical and constant occurrence, they did not deter us from proceeding to the *ultima thule* of our explorations.

Just, however, as we were about to leave Mr. K's with our faces homeward, the intelligence burst upon us that *war* had broken out. Imagine our consternation on hearing this; here were we in the very centre of Kafirland, on a comparatively unprotected station, and five hundred miles from home. A council of war, consisting of our two families, was immediately called to decide on our proceedings Two courses only were open to us,—the one to stay where we were, at K—ville, which could scarcely be expected to pass unscathed through the on-coming storm; the other to risk the dangers of the way, and forthwith to *trek.* The latter course was decided upon, and we immediately set out on that memorable journey. Even as I now write, though years have passed away, a cold shudder runs through me at the thought of the awful occurrences of these few days.

The journey from K—ville to Grahamstown was generally made by a wagon in about eight days, and Fort W. was nearly halfway between the two places; the country to be passed through was of a very rugged nature, thus rendering the road difficult and insecure.

We were well prepared for all emergencies with firearms and other means of defence; and, having a large retinue of servants, I had scouts out in various directions to give us immediate warning if any of the enemy appeared about. For the first three days after leaving the station, we met with no occasion for alarm, and were beginning to fancy ourselves comparatively secure. On the morning of the fourth day, however, we were apprised of the

proximity of a large body of Kafirs in our rear, who were apparently looking out for plunder and pillage. On hearing this, I immediately altered our course, and proceeded up a long winding valley, which joined the road again about ten miles further on. This valley, or rather dale, was carpeted with the finest green sward, while on each side rose vast and almost interminable forests, from whose branches hung suspended festoons of the beautiful and luxuriant parasitical growths which form so peculiar a feature of tropical or semi-tropical vegetation. In some parts, the "bush" on each side would almost meet across the valley, while in others it would stretch out into beautiful and undulating slopes. About noon on this day my wife and I were on foot, enjoying the beauties of the calm and sylvan scene around, the wagons a little in advance of us and hidden by one of the bushy projections already mentioned, and round which we were just going, when I was suddenly startled by one of our Hottentots, who was lingering near, calling or rather hissing, in tones of almost udicrous fright, "daar's de Kaffers!" and looking back, there were, sure enough, about a mile down the valley, a number of Kafirs, armed *cap-á-pie*, with shields and spears, just emerging from the bush. Before looking further, I dragged my wife out of sight, and immediately gave orders for the wagons to stop, and all noises of every kind to cease; and then I returned to make my observations. The Kafirs kept pouring out of the forest to the number of some hundreds, and happily they had not seen us. The course they were likely to take seemed uncertain, and I was anxiously alarmed lest they were coming in our direction. At last, to my inexpressible relief, they plunged again into the jungle, at a point considerably further from us than where they first appeared.

We remained in our present invisible position for about a quarter of an hour, so as to prevent the possibility of being seen by any stragglers who might be lagging behind the main body; fortunately none such appeared, and we continued our journey up the valley in a state of trepidation that may readily be conceived. Not that I feared one fig for myself, but the safety of my wife and child was another and more serious matter. I dared not outspan, especially as I wanted to get beneath the shelter of the guns of Fort W. that night, if possible. Between us and that wished-for refuge there was, alas, about fifteen miles of hilly country yet to traverse, and I feared to hope that we should be able to accomplish such a killing "trek."

We had arrived near the end of the valley, where we should be forced to re-enter the beaten track, and the sun might have been an hour from setting, when my scouts came running in from every direction, with breathless haste, to say that the Kafirs were all over the country, both behind and before—in fact, on all sides. I was almost stunned by this intelligence, for I knew well the character of these savages, and the fate that awaited myself, and especially my wife, if we fell into their hands. Although I was resolved to

resist, if needful, to the very last, yet what could we do against the thousands of blood-thirsty barbarians who would very possibly attack us. It was evident that to proceed further with the wagons was to rush to certain death; so, after some cogitation, I made up my mind to a bold, but perhaps less perilous, course.

Before my marriage I had frequently taken long jaunts into Kaffraria for hunting purposes, and was, consequently, pretty well acquainted with the country. There was, I knew, between where we then were and Fort W. a path little used, and only accessible to horsemen or footmen, which led through a wild and desolate country, seldom traversed, even by the natives,—one of those strange regions of precipices and ravines, kloofs and chasms, which give a distinguishing character to South African scenery. It was very unlikely that we should meet any of the enemy on this path; and I therefore determined to endeavour, with my wife and child, to reach Fort W. by its circuitous windings.

Not wishing to alarm my wife more than was needful, I merely told her that it was safer we should proceed to Fort W. on horseback; she seemed to understand the real state of things, but readily acquiesced in the arrangement, with that quiet, loving trust and confidence which renders woman so endearing. I was to carry the child before me on one horse, my wife being mounted on another; and both being armed, comparatively speaking, to the teeth. I carried a double-barreled rifle, with a brace of pistols; two of the latter I also secured to Annie's person, to be ready in case of need. Thus equipped and accoutred, I flattered myself that we should present a rather formidable front to any hostile parties. The wagons were to proceed in charge of the servants as far as possible, and to run the gauntlet of the dreaded road. I had, however, not the slightest expectation of seeing either them or their contents again; the Tottics, I knew, were quite capable of taking care of themselves, and I felt little uneasiness on their account.

About a mile from where we left the wagons, we entered upon the rugged tract already mentioned. For some time our road lay at the bottom of a tremendous precipice or kloof, down the side of which might be seen huge boulders of granite, so slenderly supported that it seemed certain they would, on the slightest commotion, be precipitated to the bottom; there they had been for centuries, and will probably remain for ages. The distant rush of waters soon told us that we were uearing some torrent; and now commenced the real difficulty—that part of the road about the accessibility of which I was most doubtful. The road here wound along the side of a long and very precipitous hill, at the bottom of which, at an almost perpendicular descent of about sixty feet, was a deep, rapid, and swollen river, which no human arm could possibly stem. When I last had traversed this path, it was sufficiently wide throughout its whole length—about three miles—to just allow of two horsemen riding abreast. How it had been

originally formed, I cannot say; probably by some military party or Kafir chief.

The sun was nearly setting when we commenced to thread this path; I say thread, for as the track followed the windings of the hill, which was remarkably irregular, it was very circuitous and deviating. Annie, when she saw the truly "narrow way" before her, naturally turned rather pale, but when I told what I honestly believed, that the path grew broader as we advanced, she became reassured, and proceeded with more confidence.

For about a mile we proceeded abreast, and then the path, much to my alarm, became sensibly narrower, and we had to advance in single file. I never shall forget that night:—below us was the dark, ominous-looking river, rushing with that *silent speed* which is even more appalling than the noisiest torrent; on the other side reared a hill, steep and gloomy as the one we were traversing; above us rose a black mass of forest, standing out prominently, from which rose many a funereal euphorbia or cactus tree, with a ghastly and weird-like appearance, that caused you instinctively to shudder; and above was the deep blue of the heavens, tinged with the violet tints of the evening, and becoming mellowed by the light of the nearly full moon, while a deep and almost grave-like silence prevailed on every side, only broken at intervals by the voice of some denizen of the adjoining forest, or the melancholy croak of a miserable frog, in the river depths below.

Still, as we advanced, the path grew narrower, and still I expected it every moment to widen. In choosing this path, I had quite forgotten the possibility of the summer torrents having destroyed it; but such, nevertheless, had been the case, and I grew fearful that we should find our way blocked up, or rather rent away. I now began to think of turning back, and hinted to Annie my intention of doing so, but she begged me not to do so, on her account, as she would rather run the risk of a watery grave than the chance of a Kafir's mercy.

So we continued on the perilous track, and proceeded two or three hundred yards further, when it became so narrow, that I peremptorily told my wife I would turn back, and looked round to instruct her how to act, when, to my utter bewilderment, I found it was quite impossible to turn the horses, so diminished had the path become. There was nothing for us then but to advance, and I dared not even dismount, to proceed on foot, for the slightest disturbance might precipitate us all into the river. At last, the track suddenly converged to the extreme of narrowness. I am not exaggerating when I say it was only a foot wide; beyond it evidently increased to its usual width, but, to gain that, to our dismay, the strait before us must be crossed. This particular spot was only about ten yards in length, but the river below looked unusually black and repulsive; however, I told Annie to disengage herself from the bridle, and have everything ready for an emergency; then, clasping our boy more tightly, I advanced. My

horse seemed to know the danger, and slowly and surely went on, picking his steps with the utmost caution. He seemed to have actually nothing to tread on, and those gloomy waters I felt certain would swallow us; still the horse kept his ground, and all I could do was to hold my breath, and think of the dear one behind. At last it was crossed. We, that is I and the babe, were safe; indeed quite a plateau seemed to open out at once before us. I was just going to look back, feeling intensely anxious as to Annie's success,—when, oh! how it froze my heart, I heard a suppressed shriek, and a fall, and, turning round, I saw that her horse had lost its footing, and had fallen into the stream, while Annie was following it. I need not say how quickly I was off my horse, and, with our boy tucked under one arm, rushed to the rescue. My wife had fortunately caught hold of the ledge, in falling, but the crumbling earth soon gave way, and her destruction seemed inevitable, when, almost beside myself, I knelt down on the path, and, luckily, caught hold of her arm, as she was about to disappear. With almost superhuman strength I dragged her up, and being, fortunately, able to assist herself, having once got some support, almost immediately she was again on the path, and safe. The reader will naturally suppose she fainted, but her excitement was even too much for that finale. But never shall I forget how those arms clung around me, after that fearful escape. How that little heart tumultuously beat against mine, nor how devoutly thankful I felt for our miraculous preservation. Such emotions and remembrances are not to be described; they are written in the deepest language of the heart, and hidden in the most sacred recesses of memory.

It was some time before either Annie or myself regained our usual equanimity, and as for the child, poor little fellow, he was too much scared and terrified even to bawl, that usual resort of frightened children,—a fact that added greatly to my comfort, as I have, in common with most husbands, an inveterate abhorence of such domestic disturbances. A little rest was absolutely required for my wife, before she could proceed further; so, as the place we were at was very exposed and unpleasant, we moved a few yards beyond to where a large piece of rock jutted out from the hill, and afforded a slight shelter, and from which we had a view of the path, in both directions. I must not, however, forget the unfortunate horses. Annie's had been carried far down the stream, and had finally disappeared beneath the water, an untimely fate which the other, that is mine, had apparently escaped, as not a sign of him was to be seen anywhere. I therefore concluded he had taken advantage of the liberty, so unexpectedly given him, to desert us and our evil fortunes, and find his own way to a better and more inviting spot.

Daylight had now vanished, but the moon shone with a brilliancy that rendered every object, for some distance round, distinctly visible. The river below was covered with a white sheet of mist, that was perceptibly rising, and threatened to envelope us shortly

in its foggy denseness,—a circumstance I much feared, as it would probably render the remainder of our journey, through this horrid pass, both difficult and dangerous. I therefore gently hinted to my wife the necessity of proceeding onward, without further delay, to which she readily and cheerfully assented, and rose from her seat to arrange her disordered dress.

I may here remark, in connection with the other sex, that, however critical may be the position in which they are placed, or however great the dangers surrounding them, they can always find time to adjust some of the multitudinous minutiæ which encumber the dress of a modern "lady,"—to stroke down the skirt, pull up the tucker, smooth the hair, or screw the head round almost to a strangling point, to see (as I presume) that all's right behind. Whether this fact is to be taken as a proof of an advanced stage of society, I leave to philosophers to determine.

Annie might have been on her feet a minute, when she surprised me, by squeezing my arm with a force that seemed quite unnecessary under the circumstances, but immediately after she whispered in suppressed, yet piercing tones—"Look," and on looking up I saw her pointing over the rock, in the direction we had just come. I immediately rose, and, to my alarm, saw approaching towards us, at a distance of about three hundred yards, where the path was visible through a projection of the hill, a number of figures, evidently Kafirs, and, from their carrying shields, they were certainly armed. When they were all in sight I found that they numbered between twenty and thirty,—a formidable array when opposed to my solitary strength. Of course we could do nothing but resist them, as the Kafir knows neither mercy nor forbearance.

Our position was fortunately very favourable for a successful resistance. We were on the further side of the rock already mentioned, which projected so far into the path as only to leave a space wide enough for the easy passage of one person. I did not like the prospect of shedding blood; but, in the present case, it was plainly unavoidable, as it was useless attempting to conceal ourselves,—the mountain being on the land side, quite precipitous, and it was utterly impossible that any person, after passing the rock, could fail to see us. I therefore posted Annie and the child close under the shelter of the natural wall, so opportunely placed for our protection, and prepared our weapons for immediate use. These would only give me six shots, which, against thirty Kafirs, was not much.

We had nothing to do now but wait; and certainly such a period of suspense I never had, and never hope again to pass through. I looked at my wife, waiting so patiently and trustful for the issue of the unequal conflict, and thought of that frail and delicate form being delivered to the tender mercies of a blood-thirsty Kafir, or of my bright-eyed and laughing son being treated and put to death in the manner peculiar, I should hope, to Kafirs only; and which even

natives in service seem to take a delight in describing, and in imitating the contortions of the helpless and innocent victims. Truly, if our English friends knew all that the writer, or in fact any colonist does, they would somewhat change their opinion of the "poor ill-treated Kafirs," than whom, I verily believe, greater savages do not exist throughout the globe.* This, too, is a fact, let it be remembered, admitted by most of the missionaries themselves. I am no "anti-Kafirite," neither am I a so-called "philanthropist;" but, judging the natives from my own experience, which, as the reader will hereafter admit, has been rather considerable, I cannot help coming to the conclusion that they are, with few exceptions, a most degraded and barbarous race. I don't see I need be called inconsistent when I add that nothing would give me greater pleasure than their reclamation, by the right means however, and in the right manner.

I am, I find, digressing into a disquisition upon that fruitful topic, the Kafirs, and must therefore pull in the reins, and return to my wife, behind the rock on the K— River, to which the enemy had now advanced within a dozen yards or so, when, to my surprise, they suddenly stopped, and the first two commenced talking,—every word they uttered being distinctly audible in our present position.

To my great astonishment, I felt almost certain, from the cautious glimpses, or rather peeps, I obtained of our foes from above the rock, that the first one was a white, and an Englishman; his back was towards me, and I could not, therefore, see his face, but his dress, manner, and appearance generally seemed to indicate that he was neither a Kafir nor a Hottentot. I listened eagerly to the conversation he was holding with one of the natives, in imperfect Kafir. Having picked up a smattering of the language, I was able to understand most of what they said. The white man's voice I fancied I had heard before, but where or how I could not imagine; he spoke first:—

"Are you sure, Luji, that they came this way?"

"Am I a son of slaves, that I should lie to Fiery Heart?"

"But how did you know they came here?"

"I followed the white man like a snake, creeping through the bush. When they got to the other side of the big hill, the young white man sent his wagons and people by the road, and came this way on horseback."

"But I thought you said he was not alone."

"He had his wife with him on another horse, and the young chief strode the horse's neck."

"Then we must take them up; let us walk strongly."

"But before I reached you, where the path is wider, I saw in the river a dead horse."

* Mr. Evanson evidently feels strongly on this subject; but, while we give insertion to his views on the native character, we beg to notify that our own opinions do not by any means coincide with them.—Ed.

"Was it saddled?"

"It had a seat with horns, such as the white women ride"

"Then she's drowned, and we've missed *her*, by —— !"

"But one horse only was to be seen, so we may yet take up the chief and his young one."

"You fool, it was *her*, *her* I wanted."

"But what is a woman? a slave, a servant, a wife; while the young white man is a chief, and has many cows."

"Be silent; come on," the white man thundered forth; and then turning towards me, I was forced to cease my observations, and prepare for battle. It was very evident we were the parties spoken of, and that the intentions not only of the savages, but the white man, were death, or capture at the least; so I felt no hesitation in resorting to extreme measures for our protection. I had, however, determined, as it would save powder, and be perhaps more merciful, to try at first what a vigorous *shove* would effect.

On we heard them come, tramp, tramp, through the still night air. Higher and still higher had risen the white mist from the river, and it seemed now like a vast shroud waiting to envelope the victims—whether ourselves or our foes—of the coming fray. I looked at my wife, and saw by her closed eyes and moving lips that she was praying; her steady faith and woman's heart had reminded her that there was an Arm mightier than our own that could protect us, and it was with solemn and chastened emotions that I awaited the encounter. The natives had commenced chanting a wild, wailing strain, that, as it echoed from the surrounding hills, rendered still more unearthly the already appalling scene.

The moment had, however, come. I heard the foremost (white) man turning round the rock, muttering to himself, "not much room for them at any rate," and there certainly was too little for him, for the next moment, having just emerged past the rock, he was hurled backward with all the force I could gather, and fell with such a momentum that I could see his body, from where I stood, cleave through the veil of mist, at about three yards from the bank, and I heard it sink into the water, with a heavy splash. For a minute all was still, for the natives were struck dumb by the suddenness of the catastrophe. They evidently supposed he had missed his footing, and began murmuring, in suppressed tones, that "the white man was like the rhinoceros, and only made to walk on flat places." A native then made his appearance on our side, and met the fate of the white man. Before reaching the water, however, he gave forth a terrific yell. Our sable friends now seemed, if I may use a slang phrase, "to smell a rat," and proceeded more cautiously. For the purpose of economising my ammunition, I determined, nevertheless, to try the pushing manœuvre once again. Presently the head of a Kafir emerged into sight, and, as I kept close to the rock, in the background, he did not at first see us, and, supposing he was safe, took his hands from the rock which he had been firmly grasping. Immediately I rushed at him, and down he went, echoing his predecessor's yell.

The natives now began to talk of the witch, feeling convinced it must be some supernatural power that had thus hurled their fellows to a watery death, and, for the following ten minutes, they continued in close conference. At last they again advanced, though in so ludicrous a manner that I could hardly, notwithstanding our danger, refrain from laughing. All Kafirs carry about with them some amulet, or charmed roots, generally hung round their necks. Our friends had apparently decided that, if each had hold of this, the witch would have no power over them, and they would be able to keep their footing. As, however, to stretch up to their necks would have been rather inconvenient, they had apparently agreed that each should fasten his charmed relic to and behind his "tail," or girdle of skins round the waist, and that each should grasp the charmed "tail" of the one in front. There would, thus, also be a united force presented against the witch's power, instead of the single strength of one individual. They accordingly advanced, each grasping the other's hinder garments, holding on to it like grim death. The ludicrous effect will readily be imagined.

I had now to have recourse to my fire-arms, and stood, with gun in hand, ready to fire. The first of the long train appeared, and was received by a bullet, lodged, as I believe, in his brain. He, of course, fell, dragging after him his two immediate followers. The natives, on seeing this, became thoroughly alarmed, and retreated a few yards, discarding the chain which had thus been so unexpectedly broken. They seemed now to be in doubt whether it really was a witch that scattered death so widely. As they seemed to be busy jabbering among themselves, I left my reconnoitreing post, and spent about a minute in loading the discharged barrel, and then returned to the watch, when it struck me that they were less in number than before. I could not imagine the reason of their steady and speechless gaze at our kindly rock, and was thinking of trying the effect of another shot amongst them, when my shoulder was suddenly pierced by some sharp instrument, and, looking upwards, I saw protruding over the rock the outstretched head and arm of a Kafir, from whose assegai I had received the thrust. Before I had scarcely time to observe this, however, I was again startled by the sharp report of a pistol, followed by the instant fall of the intruding native; and, looking immediately round again, I saw about six Kafirs rushing from the shelter of the cliff, and scampering to their brethren of the main body,—who all, after some little cautious gesticulation, wheeled right about, and commenced running back the way they came, and finally disappeared behind the farthest bluff. On returning to my wife I found her in a state of great trepidation. It appears that she, seeing my imminent danger, had snatched up one of the pistols, and fired it at the Kafir, and was now experiencing the natural revulsion of feeling consequent on having taken a fellow-creature's life. I was happily successful in quieting her scruples, and all traces of our enemies having now vanished, and, as there was no time to lose, we

immediately, to our inexpressible thankfulness, proceeded on the journey.

The road almost immediately increased to a respectable width, and, after we had walked for about a mile, the memorable pass was left behind, and the open country spread before us. The brilliant moonlight enabled us to keep to the path, and after about five miles tedious walking, and when my wife was almost sinking beneath the fatigue and excitement of the past day, we came within sight of the lights of Fort White, and ten minutes after we were safely lodged within its hospitable and sheltering walls.

Thus ended the events of a day I can never forget. Would that our good fortune had continued to the same extent, and that the rest of our journey had been equally successful.

ROADS AND ROAD-MAKING.—No. III.

THE MACADAMIZATION AND PAVING OF STREETS.

In calling attention to the remarks on the repair of streets and roadways in large and populous towns and cities, made by the distinguished engineer from whom we have so freely quoted in our last paper, we consider their value much enhanced by the fact that they contain nothing new, but simply show the importance of the old beaten path from which the introduction of railways has drawn off attention ; and which we in particular, in the waywardness of our youth as a people, have lost sight of. In tracing our way back to this old beaten track, we lose sight of axioms and first principles, and treat our streets empirically, as though there existed no rules for our guidance ; and the practice appears as much a mystery to us as would be the laying down the electric telegraph. It is in juxtaposition to the novelties of streets rounded into impassable mounds on the one hand, and worn into water-courses on the other, that we would wish to see placed the well-understood common principles of road-making.

Sir John Burgoyne does not approve of macadamizing the streets and crowded thoroughfares of cities, but considers " that a perfect pavement is eventually cheaper, and altogether preferable." Dublin is given as an instance of the effects of macadamizing in cities, and certainly the streets there are anything but inviting. This arises in a great measure from the moisture of the climate and difficulties of drainage. But the climate and position of Cape Town are so superior to Dublin, that not a single trouble is left us, in common with it, on which to hang an excuse.

Where macadamizing is practised, in either road or street making, he strongly recommends rolling until perfect solidity is acquired, and gives an account of the practice followed in Dublin and in various places on the Continent. He gives the preference to that followed in the Prussian provinces of the Rhine, and introduced into a neighbouring district of France, where it has been, from the absence of railways, more an object of public attention. The roller he recommends has a lineal bearing of four feet, and should, when loaded, be about five tons and twelve hundred weight, or twenty-eight hundred weight per foot; and worked by six horses. The upper surface of the road is covered with an inch or two of fine gravel, which ought to be considered as material, and the rolling would then cost about £10 15s. per mile. After this work is done, it is stated that the upper crust may be raised in cakes of six or seven square feet at a time, which it could not be without gravel. The subsequent wear of materials, under proper care, will be most trifling. One French engineer states that when the rolling in this manner has been successfully performed, there has never been a necessity for applying above one cubic yard of broken stone for 300 square yards of road in the next year, that in one instance only one cubic yard for 1,500 square yards was used, although on a road subject to the passage of 400 horses in draught per day, and on another road no fresh stone was laid for three years. Now in order to realize to our minds in some degree the value of this macadamized and rolled road, we will endeavour to compare it with Cape roads as far as the circumstances admit. We have seen in a former paper what the French engineers mean by horses in draught, that each horse draws one French ton, and consequently the 500 horses would draw 395 English tons. The traffic on all the roads leading out of Cape Town is 1456 wagons weekly, which divided by 6 days per week would give 242 daily, at say 3,000 lbs, or 1½ tons each, would give about 364 tons; that is, the French road had considerably more traffic on it than all the roads leading into Cape Town. And yet, after this successful mode of treatment, it required only about 90 cubic yards of materials to the mile, of a road 24 feet wide in a year.

That collection of the intramural wisdom of our city, which around the Municipal Board watches over the state of the streets of Cape Town, has been distinguished by a remarkable hesitation as to the course best to be adopted to effect this part of municipal duty. This dubitancy has shown itself by the laying down of a little patch of broken stone here, a small patch of stone pavement there, and an experimental patch of

wood pavement somewhere else; as if there could be any reasonable doubt about practices, the efficiency of which has been well known for half a century. These first diminutive patches have been succeeded by others somewhat larger, and then again by others of more respectable dimensions at the military lines, and in Adderley-street. Each of these has its peculiarities, and we shall, in the course of this paper, make a few remarks on them, though not disparagingly, for they do not merit that, and we would not wish to check the return to known rules and fixed principles.

The peculiarity of the macadamizing in Adderley-street (for this is the only part having the slighest claim to the name), is, that when the old road was picked up, and the cross section re-formed, it was formed flat, and without any convexity, and this rendered it necessary to obtain the required roundness, by laying on an increased quantity of broken stone, and that too at a time when other streets were impassable from want of material, and when there was not stone enough to finish the undertaking already begun.

The materials have been laid on twice, and the first layer was allowed to consolidate before the second was laid on, which will prevent their uniting. A road has some properties in common with the wheel that runs on it. It is the frame-work of the wheel, bound together by the tire, which supports the load, and if the frame-work be deficient or deformed, no thickness of tire will compensate for the deficiency. In like manner, if the foundation of a road be deficient in strength, or deformed, no thickness of material will compensate for this without a sacrifice of economy and comfort. The foundation of a road should have the curvature which is intended to be given to the surface, and the stone laid equally over all its parts. It is quite a mistake to suppose that the crest of a road has more wear than the other parts. If the curvature is not so excessive as to affect the draught, carriages will move equally over all its parts, and in populous towns and their neighbourhood, there is always a tendency (even when there is no law to enforce it) to keep the sides of the road to avoid collisions. It is only when the convexity is so great as to affect the draught of carriages that the traffic is confined to the crest of the road, and then the wear which ought to be distributed over the whole surface is confined to one track, and becomes proportionally great.

We have a special favour for wood pavements. When well managed, they are smooth, clean, dry, and firm; free from dust and mud, and, consequently, comfortable. But one essential condition for their success is that they should be

laid down firm, and that the pieces should approximate nearly to an equal size; or, in other words, that they should have nearly equal bearing to support weight. The size, when they are circular, should not exceed six or eight inches diameter, and should break joint with each other. When larger and circular, and also of unequal sizes, they will not fit sufficiently close, and the vacant spaces will be filled up with pieces of a different form, split off from a block with a hatchet, and, probably, somewhat pointed, for the greater facility of fitting, and the superficial bearing of which does not exceed six square inches.

Now, when a loaded carriage passes along a road, the weight of the load, plus the weight of the carriage, is successively borne by a very small part of the wheel, perhaps with a bearing on the road of not more than three square inches; and supposing the carriage to be an omnibus, loaded with forty passengers (by no means an extreme load, as sometimes they load up sixty), at four o'clock in the afternoon, when they are principally loaded with full-grown persons, who will weigh, on an average, one and a quarter hundred weight each, the load will weigh two and a half tons. And if we add to this the weight of the carriage,—twelve hundred weight,—we shall have a load, exceeding sixty hundred weight, distributed equally over four wheels. This gives fifteen hundred weight for each wheel; so that we have two loads, of fifteen hundred weight each, passing over the same line and resting successively on every part of it, on not more than three square inches of bearing. It will thus be seen that when the wheel rests on a block with a superficies of nine inches, to resist a weight, its tendency to crush the block into the foundation will be fifteen times as great as when it rests on a block having a superficial bearing of one foot, or one hundred and forty-four square inches; yet some of the blocks in the wood pavement at the military lines of Cape Town have a diameter of eighteen inches, whilst others have not more than three inches, such a difference in size cannot, by any possibility, afford equal resistance to pressure; and, accordingly, we find that the very small blocks are pressed in so far as to be beyond the reach of wheels which receive support from the two contiguous large blocks, and the wear of which, from want of support between them, is proportionally rapid.

A primary defect, in laying down this wood pavement, is that of having placed a line of blocks of large and nearly equal dimensions, along the crest of the road, as a directing line, from which the contractor has worked towards the sides;

and as these blocks are all of nearly equal size, and do not break joint with others, the traffic along them has chipped off and worn down the edges, and formed a small furrow along each side of the crest. Now this practice is decidedly wrong, for the crest of a road is,—as has been already shown,—perhaps, of all parts of it, the *least* subject to constant pressure from heavy loads, and, therefore, the large blocks need not be placed there. If any permanent line of direction is required, it should be formed of the smallest blocks and not of the largest, and then these furrows could not exist.

The slippery surface of wood pavements in frosty weather will, perhaps, prevent their adoption in climates subject to frost; but they are not subject to the same objection in climates where frost does not exist. We have heard of complaints of the slippery surface of the wood pavement in Cape Town; but this arises from fast and careless driving; and there certainly is no valid reason for sacrificing the comforts of a city to accommodate or humour the whims of a few wagon-drivers, among whom careless and furious driving has become habitual.

In countries where the practice of road and street-making is well understood, and where skilful inspectors are at all times available, making roads by contract is often the best method of doing the work. But it is absolutely necessary that contracts for road-making should specify not only the work to be done and the material which should be used, but the way in which every part of the operation should be performed, down to the most minute details, and every part of it should be carried out under the immediate supervision of a qualified surveyor, whose duty it should be to prepare a previous estimate of the expense of the work as a check on the contractors, to prevent ignorant men undertaking work which they do not understand, and at unremunerative prices. Contractors, like other men, are influenced by two great considerations—character and pecuniary profit; but the latter is much the stronger inducement of the two, and to attain this, the former will not long be allowed to stand in the way. If a contractor has undertaken a work at a price that will not remunerate him, he will certainly take all opportunities to do inferior work, or put in inferior materials; and it should be as much the interest of those entrusted with the management of roads to prevent contractors from undertaking work at unremunerative prices as it is to prevent an overcharge.

The economy of wood pavement is a matter of which, as yet, we have very little knowledge, it is so much influenced by local circumstances; but comparatively small timber only is necessary, and in many cases the larger branches of large

timber are suitable, to say nothing of the large harvest of timber now strewn on the shores of Table Bay, a supply, however, which we do not wish to see repeated; and there is every reason to believe that this cool, clean, and comfortable road will be very economical. One advantage it possesses above all other descriptions of road, is that it yields neither dust nor mud, and its economy, as a subject for the labours of the scavenger, is thus very great, as compared with stone pavement. Had Adderley-street been paved with a wood pavement and flagged foot-paths, what a relief it would have been from dust; and this noble and neglected thoroughfare would soon have vied with the fine streets of many of the principal cities of Europe. The broken stone would have been much more suitable where the pavement is at present.

When advocating the advantages of macadamized roads, we do so only in comparison with gravel and clayed roads, not with stone pavements. Here the comparison will not hold good, and macadamized roads and streets are as much inferior to a well-laid pavement as they are superior to the old mixture of clay and large stones; this, of course, assumes that it is laid on a good foundation. The want of this precaution in the stone pavement of the Keizersgracht, near the back of the Castle, has rendered that patch a very unworthy representation of what a stone pavement ought to be.

The following extract from Sir H. Parnell (p. 141) is very striking on the comparative value of stone pavements. A Mr. Johnson, a pavior and stone merchant, stated before a committee of the House of Lords that the very best pavement would cost 13s. per square yard, which would require no repairs for the first year certainly, and in most cases, would cost nothing in repair for the first three years; that the expense after the first year would be about 4d. per yard per annum for ten years; after which the pavement, as laid down, would be worth 8s. per yard; thereby reducing the expense of a square yard of pavement, in ten years, to 10s. 10d., as under:—

First cost of superficial yard	£0	13	0
Ten years' repairs at 4d. per yard	0	3	4
Ten years' cleaning at 3d. per yard...	0	2	6
Total.....	£0	18	10
Deduct value of old pavement at the end of that time.....	0	8	0
Total.....	£0	10	10

The old stone might last twenty years longer, but, at all events, would be worth 8s. per yard after ten years' wear.

A macadamized or broken stone road requires, for keeping in repair, every year, two coats of three inches thick, to allow for wear; the coating costs 1s. 9d. each yard; the cleaning and scraping costs 10d. each yard as under

First cost per superficial yard	£0	7	6
Two coatings at 1s. 9d. each per yard for ten years.....	1	15	0
Cleansing at 10d. per yard for ten years	0	8	4
Total.....	£2	10	10

Or, £2 per yard superficial more than the pavement; or for a mile of a road, twenty-four feet wide, £7,627 13s. 4d. for the pavement, and for the macadamizing £35,786 13s. 4d. in ten years.

This, however, was in some of the most crowded thoroughfares of London, and the proportions would not be the same in Cape Town; for the traffic is comparatively so small that one coat of broken stone, of three inches thick, would be sufficient for a year's wear; and the durability of the stone pavement would carry us far into the days of the next generation; a point very far indeed beyond the reach of the present road economy of Cape Town. But whether we macadamize or pave with wood or stone any change will be an improvement on the present practice. The practices followed in London will scarcely afford us any criterion of cost, for the price of labour there is as great as it will be here; they pay high for their materials, and bring them from a great distance. The granite is—much of it—brought from Guernsey and from Aberdeen, each a long sea voyage. No small portion of broken stone is brought home long voyages from India, China, and other parts, as ballast, in ships; and the wood for pavements is brought from a considerable distance; whilst we have a quarry for broken stone within one hundred and fifty yards of our streets, and granite within one and a half mile, and an abundance of small timber in a very near neighbourhood. It is not, therefore, in the difficulties of our position, or the scarceness or badness of material that we have to look for an apology for the bad condition of our streets. This, as well as other branches of our city administration, is in the hands of twelve of the wealthiest, wisest, and most distinguished of our citizens, aided by forty-eight of the most industrious, exemplary, and intelligent of our middle classes; and if it succeeds not in their hands, it leads to the inevitable conclusion that, in street economy and repairs, it is not in the multitude of councillors that wisdom is best exemplified.

THE CAPE OF GOOD HOPE AGRICULTURAL SOCIETY.

BY T. B. BAYLEY, ESQ.

THE late Agricultural Show, in Cape Town, owed most of its interest to the exhibition of machinery,—quite a new feature at such meetings, and one which opens a wide field for future cultivation. The report of the Cape of Good Hope Agricultural Society will, doubtless, notice what then occurred; and, as that report will probably appear in your pages this month, my remarks on the same subject must be necessarily brief.

The portable steam engine, of six horse-power is one much used in England for working thrashing machines, and can be applied to a variety of agricultural operations with which this colony is not yet familiar. For thrashing purposes the steam engine, in the open air, is not likely to be much used in South Africa until railroads are accomplished, and animal labour requires to be economized. The danger of using a steam engine, near corn stacks, may appear considerable; but it is incurred in England, and there the risk of fire is greater, from the comparative unsteadiness of the winds. To be sure the fire insurance offices exact a larger premium when the portable steam engine is used in rick yards, or amongst thatched buildings, but the additional charge is cheerfully paid. The engine exhibited lately in the Paddock may be employed advantageously in this colony for sawing wood, making bricks, raising water for irrigation, &c., &c., &c.

Mr. Fyffe's tobacco-cutting machine, being a most creditable specimen of *colonial* manufacture, was deservedly rewarded with a prize. The establishments of Mr. Fyffe and Mr. Prebble (and there may be others within reach, unknown to me) are most important acquisitions to the colony, as they are evidently capable of constructing and repairing machinery and agricultural implements of any kind. This is a matter of no small moment now, when machinery is coming so rapidly into use, and will tend materially to its further employment. Hitherto, the chief hindrance to the introduction and more general application of thrashing and reaping machines amongst us has been their misapplication when first tried, Too often placed in the hands of people wholly unacquainted with their mechanical principles, and careless of their due adjustment, they quickly broke down; and these failures being attributed to defects in the implements themselves, instead of

to the ignorance of those who worked them, have caused great discouragement.

When respectable and well-trained English farm labourers are brought to this colony (as, under the present immigration arrangements, they soon will be) the application of machinery to our farming necessities will soon become more general. It has been proved that a thrashing machine and winnowing machine (combined) can easily clean 100 muids of wheat in a day, with twelve men and six horses, or eight mules; whilst, by the old system of tramping, the same quantity of corn could hardly be carried to the granary in less than a fortnight, with six or eight men at work daily, and thirty horses or mares, half killed by the pitiless process. Then look at the reaping-machine. The two which were tried at Mr. Mostert's farm, at Mowbray, last year, under many disadvantages, cut down the wheat as fast as nine or ten men could bind it up; and some, of later construction, are said to be much improved.

The ploughing-match in September, 1857, was not so successful as could have been wished, for, although the work was well done, the competitors were few. The contest was between the American and Howard English ploughs;—the old Cape implement, the Swedish, Scotch, and other kinds known in the colony, not being brought forward. This was unfortunate, as the object in view was to test publicly the ploughs of different countries, and of various constructions. Although Howard's double-furrow plough gained the prize, as being the best for general use in the colony (with reference to the class of ploughmen most available, and the draught of oxen), the single-furrow plough, also by Howard, was clearly the implement for a skilful workman, and a pair of horses. On this occasion, it was worked by one of Mr. R. Hare's men (an emigrant of 1847), in truly artistic style, and astonished many of the spectators, who had never seen really good ploughing before. The prize for the best plough, for breaking up land, was assigned to *Howard's Colonial plough*, also the property of Mr. R. Hare; and its performance was the admiration of every one present.

As the *colonial* plough, though introduced into the colony by myself many years ago, is yet but little known; and, as its good properties have been at last publicly recognised, I may be excused taking over from the Cape *Agricultural News*, of September 5, 1850, the description I then gave of it:—

"The *Colonial plough* was made by Howard & Co., of Bedford, at my suggestion. I explained to them that our Cape boers are very fond of a wide furrow, and that I thought a strong iron plough, made on the principle of their *Champion* plough, with a few trifling alterations

(which I pointed out), might suit the ideas and wishes of many agriculturists in the colony, who are more addicted to quick work than good work. The cast-iron shares, for making a furrow-slice of fourteen or sixteen inches, are only intended for light or loose soils, free from large stones or roots; but the hammered shares will bear rough usage, certainly any reasonable punishment, without yielding, as I know by practical experience. But the great merit of the *Colonial plough* is that it can be worked with the common share of the *Champion* plough, or with one nearly double the size, because the mould board is expansive; or it can be changed entirely, if a high finish is required to the work. The *Colonial plough* also, from its strength and elevated mould board, is admirably adapted for breaking up new land."

A dissertation on ploughs and ploughing would be rather a heavy article for your miscellany, and would probably involve me in a controversy or discussion with Mr. F. W. Reitz, who has asserted, in his pamphlet, that "a good shower of rain is a sad leveller of the high-bred Ransome, and the vulgar Cape clodhopper." This is a doctrine obviously liable to misconstruction, and scarcely to have been expected from such a quarter. "Not to put too fine a point upon it,"—I should have thought that Mr. Reitz would have taken a different view of the matter, saying rather,—"Although, in favourable seasons, the difference between good ploughing and bad is not *so* perceptible, yet, in the long run, the best work must tell, and slovenly farming must go to the wall." But, admitting (which I do not) that Mr. Reitz's proposition is correct on one side, its converse must hold good also; and, supposing the "leveller" does *not* descend, what then? In two years out of three, in most districts of the colony (or, say the Western Province), the "good shower of rain" does *not* come when it is most wanted. Your readers can draw the inference.

I am far from advocating the use of any one particular plough for the whole colony. The American may be quite as efficient as the Howard, in some localities, and the old Cape implement may answer the expectations of those who follow it, in other places,—just as the common Indian plough, which is little better than a crooked stick, and merely scratches the surface, fulfils the requirements of its owner, in the climate and soil of Hindostan. But scratching the surface year after year, and leaving a subsoil as hard as a metalled road, is not likely to give the plant fair play—rain or no rain; and the supersession of the old Cape plough, by European and American, in the principal corn-growing districts, is a sufficient proof that practical men, whether Cape-born or otherwise, are convinced of their inferiority; whilst the increasing demand for English ploughs, particularly Howard's double-furrow, clearly shows that they have worked their way into

favour. Certainly they meet with odd treatment occasionally, and the strange spectacle of a "Howard" body attached to the lumbering forewheels and carriage of the ancient Cape plough, I am credibly informed, is sometimes to be seen even within easy distance of Cape Town! By the process just described the balance of the English plough is lost, and its steadiness and smoothness of draught are, of course, in a great measure destroyed. This innovation arose from a desire to relieve the ploughmen from a little trouble,—an indolent motive, only to be carried out at the expense of the cattle, which the inventors do not seem to understand. I recollect when the iron ploughs of Ransome and Howard first came into use, a great outcry was made by some of the experimentalists, because the cast-iron shares snapped, or the plough itself became *hors de combat* from the fracture of bolts, axles, &c., &c. It did not seem to occur to the complainants that cast-iron shares were not intended to delve amongst stones and rocks, or that it was necessary to teach a Hottentot ploughman how to handle the new implement, so as to avoid disaster. The same persons would not expect to see a locomotive steam-engine, fighting its way across country, through sand-hills and swamps, from Cape Town to Somerset (West), nor would they entrust its guidance and management to a Kafir, wild from the jungles. Yet, as far as the principle is concerned, they did very much the same sort of thing with their English ploughs, and are continually doing it with other agricultural implements, requiring a certain amount of intelligence and attention.

The Cape of Good Hope Agricultural Society has not lost sight of the wine-farmer. The best method of encouraging improvement in our colonial wines has long perplexed us,—the system so long, and still practised, of giving our prizes for young wines, being clearly inadequate to the object desired. In order to meet this difficulty most effectually, our committee advertised, in the public papers, that a deputation of its members would be happy to meet a deputation from the wine-farmers of the Paarl, Stellenbosch, and Drakenstein, at any place most convenient to themselves, when the subject could be discussed, and brought to some practical issue. Circulars to the same effect were sent for distribution through the civil commissioners of those districts, but no response was made. After waiting some time, the Committee of the Cape of Good Hope Agricultural Society wrote to the Secretary of the Paarl Wine Company, repeating their former offer, and requesting some reply or other. This, when it came, was to the effect that, "as the vintage was at hand, the wine-farmers

had not leisure for such an interview," as if a couple of hours could not have been found in the evening for the discussion proposed! It is right that this should be known, as the Cape of Good Hope Agricultural Society is frequently accused of indifference on certain subjects, and disregard of special interests, when, in reality, the fault often lies with those it is trying to serve, and that, too, in the manner which may be most acceptable to themselves. The object of our society, in proposing the interview and discussion just mentioned, was to devise, if possible, some plan of giving prizes, which might induce no inconsiderable number of the wine-farmers to prepare their wines with more than usual care, and to keep them in the colony till they had acquired a certain ripeness, and therefore improved adaptation for a foreign market; or, in other words, to bring Cape wine into notice abroad, as a beverage not necessarily of a choleraic tendency. The *Commercial Advertiser*, not very long ago, when condemning the objectionable practice of exporting young and raw wines, averred that "liquids had been sent to England, under the name of Cape wines, which justified universal abhorence;" and the high prices given in the same market, this year, have unfortunately caused a most deplorable accommodation of the same kind. So great has been the quantity of the "liquid," called Cape wine, shipped for England this year, and much of it, I am told, so fearful in quality, that unless vigorous measures are taken to counteract the terrible impression thus made, the consequences ultimately may be serious to the wine-farmer of this colony.

The prizes hitherto bestowed, in this department, by the Cape of Good Hope Agricultural Society have been for young wines, on the ground that the country people could not be expected to keep any quantity of their produce in store for a length of time, unless tempted to do so by the hope of more liberal rewards than the society could afford to offer. But this objection (had the wine-farmers, by their presence and co-operation, given us any encouragement) would have been obviated by a private subscription from certain members of the Cape of Good Hope Agricultural Society, for so great was the interest then taken in this matter that we could have raised from £50 to £100 amongst ourselves, independent of the society's prizes. However, all this fell to the ground, from the apathy of those whose interests we were desirous to serve. That apathy can be accounted for, in some measure, by wines of any sort being in such extraordinary demand last season, for exportation, and bringing such unusual prices, that the producers thought they were on the high road to

fortune (if not fame), and required no help. But there can be no question that if Cape wine is to maintain any hold of the London market, as regards its price, it must be improved in quality; and to that end such energies as we can scrape together should be directed.

The funds of the Cape of Good Hope Agricultural Society are inadequate to its aspirations, and its movements are fettered by the precarious nature of its resources. This will be remedied, to some extent, when the grant from the public revenues, sanctioned by Parliament, is realized. The annual subscriptions barely keep it alive. Many of them are collected with difficulty,—repudiation being a favourite method of announcing a subscriber's retirement, especially if he happens to be in arrears, or to have been disappointed in his prize calculations. It is not pleasant to notice these things, but neither is it pleasant for those who have the management of the society, when they are expected to achieve wonders with an empty exchequer, and to perform miracles of progression without the requisite machinery. It would be desirable if we could import, from time to time, new varieties of wheat, and other cereals and plants, suitable for our colonial agriculture, and occasionally some new implement, for public exhibition and trial; but this, in the present state of our finances, is out of the question.

A society for the diffusion of useful knowledge, though only agricultural knowledge, or rather for that very reason, should court publicity in every shape, or its proceedings can have no general influence. Our prize lists, and the results of our exhibitions, ought to be constantly in the advertising columns of every respectable newspaper in the colony; but this we cannot afford. Some good might be effected, also, by offering prizes for essays on various agricultural subjects, such as machinery of various kinds, made in the colony, or imported, wine-making, the breeding of stock, &c., &c., and by distributing such essays, in the English and Dutch languages, *gratis*, all over the colony. People might not object to turn over the pages of a pamphlet, when they have nothing to pay for it; and in this way some benefit might eventually arise, though, perhaps, but slowly.

Before closing these remarks on agricultural matters, I must take the liberty of adverting to the practice which now prevails in some parts of the colony, amongst the speculators in wool, of buying it on the animal's back. They are thus encouraging bad washing and bad sorting, and careless habits; and, if this suicidal process is carried to any length, the farmers themselves will be the sufferers, as this branch of our

colonial exports must inevitably return to its former low position in the London market. The six months clips from some of the Eastern districts, and the dirt and grease from many of the Western, are most injurious to the credit of the Cape wool-growers; and that credit the wool-buyers in the colony will, in the long run, find it their best interests to keep in view.

The demand for horses, from India, has been met in a very satisfactory manner. They are coming in rapidly (500 having been procured in four weeks, besides 300 supplied from the Artillery and Cape Mounted Riflemen), and of so good a quality, that if the average price is kept within moderate bounds, and the casualties on board ship are not great (but they *will* be great, if crowded together for so long a voyage), there is every probability that a permanent remount agency for India will be established at the Cape. The breeders will now see that it is their interest to procure stud horses of size and substance, as well as blood; and, as such animals are seldom brought to this colony, I must remind all whom it may concern that the Cape of Good Hope Agricultural Society will undertake commissions (from breeders only) for English horses of any description, and that I will myself guarantee that the right sort are purchased. It may be as well to mention that horses, for Indian service, must have a good dash of blood in them, otherwise, they will soon knock up in that climate; and therefore, although animals of size and power are required, they must have activity and action also.

HISTORICAL SKETCHES OF SOUTH AFRICA.

No. 4.

I SHALL now proceed with the account of the Rev. M. Borcherds, as collected from the original records, and alluded to in the last sketch relative to the first two years of the occupation of the colony.

April, 1652. Amongst the documents which have been preserved relative to this settlement, the instructions for the officers who were to proceed hither first (mentioned in the third sketch) merit consideration. This document comprises, principally, the following directions and remarks:—

"That the Board of XVII, representing the whole of the General Chartered Dutch East India Company, had, for the benefit and protection of their trade, resolved to form at the Cape of Good Hope an

establishment for the refreshment of their ships. That, on the arrival of the expedition, a part of the people should land and erect a temporary building, of wood, for shelter, and wherein they might deposit their various implements. That they should further construct a small defensive fort, at the Fresh River,* according to a plan already prepared; that it should be called the *Good Hope*, and should be sufficiently extensive to lodge from seventy to eighty men. That, this being effected, they should select the best ground for gardens, and the land most adapted to pasture, for the purpose of breeding cattle. That each individual should consider himself called upon, in the most impressive manner, *not to molest the natives, nor take away their cattle;* but, *on the contrary, to gain their confidence by kind and friendly treatment.* That, as the main object in establishing this fort was to obtain a place for refreshment, and to enable vessels to pass to St. Helena, it should be particularly observed what description of fruits could be best cultivated, consistently with the climate and seasons. That the people should be governed according to the *General Artikel Brief*, † to which they had sworn; and that they should not be allowed to waste their time in idleness. That the commander should keep a journal, and endeavour to discover some means for defraying the expenses which might be incurred. That as soon as the fort was in a state of defence, seventy men and the boats should be taken from the ships, to assist in building and other necessary works; particularly in making a wooden beacon, or something of that description, to point out the anchorage to vessels entering the bay; and that they should also plant four pieces of cannon upon each point of the fort." ‡

The further execution of the plan was left to their own judgment and ability. But they were recommended to be diligent in keeping correct memoranda of everything that passed, as well as in corresponding with the Company.

In compliance with these directions, Van Riebeek commenced his diary immediately after his arrival; and, as it was probably kept with the knowledge and approbation of council, his principal observations, and the several vicissitudes of his fortune cannot be better ascertained than by following that document.

The first acts of the founder of this settlement, upon whose measures the future happiness or misery of so many thousands of human beings was destined to depend, show, in a remarkable manner, his restless assiduity and anxious desire to effect the desired end with promptitude.

* What is here called Sweet or Fresh River is the stream flowing from the Table Mountain, from which the town is now supplied with water. It ran into the sea near the wharf.

† A collection of instructions for the officers and others of the Company's vessels, and various other regulations for the government of their servants by sea and land.

‡ This is more circumstantially described in the diary of Van Riebeek, under date of 9th April, 1652. (See South African *Tydschrift.*)

Three days after his arrival, he superintended the people at work on the ground he had already marked out for his favourite project,—the erection of the fort "Good Hope."

No impediments could weary his inexhaustible patience; no dangers could daunt his determined spirit. Before the expiration of the month he had, by several excursions, made himself acquainted with the surrounding country. On the 21st, he visited Table Mountain, the Lion's Hill on the 27th, and, on the 28th, the back of Table Mountain; and by means of the captains, Hoogsaet and Turver, with other persons on whom he could rely, he had obtained information respecting the country as far as the Salt River.

He was much delighted with the pleasing idea that the country which, to his glowing imagination, appeared so fertile, might hereafter be cultivated by *Chinese*, or other people of colour, or even by Europeans; and, with this feeling on the last day of the month, he writes:—"On this day we, with the captain, Hoogsaet, laid the first stone of the walls upon which the rafters of the dwelling house and store are to be placed."

It is worthy of remark that Van Riebeek, true to the religion of his forefathers, had, from his arrival at this place, caused divine service to be performed every Lord's Day, and a sermon to be read to him and his people by the chaplain.* This he generally styled "*Het Sermoen.*"

Daily, morning and evening, prayer seems also to have been customary. On the 24th, Van Riebeek and his family left the ship, and resided in a temporary wooden hut,—the better to attend the progress of the work.

Little else of consequence happened this month. The transactions with the natives were few; and the killing of a hippopotamus by his people, during the night of the 24th, figures as the most remarkable occurrence.

May.—The second month of Van Riebeek's residence here passed in similar occupations; and, by his continual presence, the work advanced more to his satisfaction. He received much information about the surrounding country from parties sent out for that purpose, particularly from Van der Helson and Verburg, who, with two other persons, penetrated about eighteen miles (or six Dutch miles) behind the Table Mountain, going through the kloof between the Table and the

* In the original "Krankezoeker," in the Dutch Church, a person whose duty it is to visit and pray with the sick; but who, however, is not ordained, nor can exercise any other clerical function. There appears to have usually been one on board each ship.

Lion's Head. They made a very favourable report of having discovered immense forests of large trees, and a great number of deer, steenboks, and other game, and also civet cats.

He received, at this time, a reinforcement of fifty men, by two ships from Holland, and the minister, Bonkerias, having arrived in the ship *Whale*, Van Riebeek had, on Sunday, the 12th of this month, the gratification "of hearing the first sermon preached, and of the sacrament of the Lord's Supper being administered in an uncovered part of the house in the square of the intended fort."

Having held his last council, called the General Council (see Records of Council, 11th May, 1652), on board the *Dromedary*, at which all the captains were present, he, on the following day, in obedience to the orders of his employers, gave to the four bulwarks, or points of this little fort, the names of the ships which were then at anchor. The south point was called *Dromedary*, the east the *Whale*, the west the *Elephant*, and that to the northward was named the *Heron*. The yacht, which was to remain here, had already given her name, *The Good Hope*, to the whole fort.

Some days afterwards he visited the wreck *Haerlem*. But the vessel, with her guns, were too deeply sunk in the sand for him to turn them to any advantage at that time, although the benefit which he might subsequently derive did not escape his far-seeing intellect. Towards the end of this month a disease, called by him the red dysentery, or "bloody flux," made great ravages amongst his people. He lost five before the month was out, besides a soldier who died on board the *Hof van Zealand* and was buried here.

Nothing further remarkable happened except the taking of a young hippopotamus, the flesh of which had the flavour of veal, and being distributed among the sick, whose number was daily increasing, tended, in some measure, to their comfort.

The month of June proved still more discouraging. In the first five days alone three of the men died; and it appears, from other remarks in the diary, that fevers, flux, and other ailments, caused and increased by cold, and other concurrent circumstances, had not, out of 116 labourers, left more than 60 in tolerable health. In addition to these disasters, extraordinary high winds, heavy rains, and hail storms, occasionally accompanied by violent peals of thunder, the spoiling of his bread and other dry provisions, caused him to write in his diary—"that if the Almighty were not pleased to stay His chastising hand it was evident that their labour would be tedious, and of little profit; but that, however, he still relied upon God's gracious assistance."

His wife was also attacked by the same disorder as the rest had already suffered from; and, in a short time, he had scarcely 50 men sufficiently healthy to work. He could give the sick but little relief. One cow and a calf were all he had been able to obtain from the natives, and he now found it "a poor and miserable life, as one after the other was attacked by this destructive malady, to which also many fell a sacrifice;" and, on the 10th, he adds:—"If the Almighty be not pleased soon to relieve us from this calamity we see very little probability of completing our work, as many of our people die, and the greater part of the remainder are sick."

In the midst of these adversities a thatcher was found, and, by his expertness, Van Riebeek's house was soon finished. Several native vegetables, such as asparagus, trefoil, and sorrels were discovered; and he had already Dutch lettuce and cresses for himself and the sick. Many whales were seen in the bay, which gave him hope that, ere long, much profit might be derived from establishing a fishery; and, towards the end of the month, he had a plentiful draught of small fish.

Meanwhile six more of his people died; but likewise the first child was born in the fort "Good Hope" on the 6th. The mother, who was the chaplain's (Ziekentrooster's) wife, had, in the beginning of the month, been put in possession of the first lodging in the fort, whilst Van Riebeek and the rest still lived in huts, in the expectation of soon occupying their own new residences.

In this manner the commander reached the fourth month of his stay here. His next undertaking was to visit Robben (Seal) Island in one of the small biscay boats, to examine the island, and to observe whether seals could not be caught there: but this first attempt was unfortunate. He was in danger of losing his life; and he mentions in his diary that, "by the blessing of God, and the visible guidance of Providence," he had that evening "returned in safety from as great a peril as had ever been experienced in this world."

The weather beginning to clear up, he sowed wheat and barley, and carrot seed. But he was disturbed, in the midst of these occupations, by complaints against Jan Blank, who was accused "of having been guilty of gross insolence towards the commander of the yacht," and, being tried, was sentenced to be dropped from the yard-arm into the sea, and to be afterwards further punished with fifty lashes. This sentence was carried into effect on the following day. Van Riebeek refers, on this occasion, to the sentence-book, in which, as this was the first case of crime subject to corporal punishment, it is probable the reasons for the sentence were mentioned,

and the constitution of the court described. And he adds that it would be found in the said book "Largo," which was his usual expression for more full and circumstantial details. A second case of the same nature followed immediately after.

He had, however, the gratification of seeing his wheat spring up on the 10th. About the middle of the month, he perceived, for the first time, that ice had been formed during the night. A large quantity of game, of every description, particularly elands and other deer, appeared near his residence. He laid snares for them, but was unsuccessful. He was much pleased to see his vegetables thrive; and he began to hope that, "under God's blessing," he should be able to refresh the ships touching here, on their way to India. But, before the month had expired, his expectations were, in a great measure, frustrated by heavy rains, and consequent inundations. Several parts of the mountain were, for five or six days, covered with snow; and a considerable number of baboons ran along the foot of Table Mountain.

Three deaths occurred this month, and the cold wet weather occasioned the illness of eight or ten more of his people. With the exception of some warm wine, he had nothing for their refreshment; but he was not without hope that the Saldanhians would soon arrive with cattle, and that he might then obtain a large quantity for his people, and for the ships which were expected.

In the meantime, however, his main work was proceeding; and, on the 3rd August, every one left the beach, to reside in the fort,—the north point of which, "the Heron," was already sixteen feet in height, and in a complete state of defence.

Provisions began now to be stale and scarce, and, on the 13th of this month, he assembled the council in the fort, for the first time, when it was resolved to request, from the ships expected from Holland, assistance in men, &c., and, in case of such being refused by the commanders, "to protest against them, in equity, for all costs, hinderances, damages, and inconveniences" which the company might sustain from their unwillingness and refusal, and to take such further steps as might be found necessary for the service of their employers.

September.—The commencement of September was favourable, and Van Riebeek had the satisfaction of enjoying some of the vegetables he had previously planted, as an experiment, on his arrival. But his peace was disturbed by a very disagreeable occurrence with a corporal, named Joost van der Laak, who, in a fit of drunkenness, insulted him. On the 13th of the preceding month, he sat in council with

Van Riebeek, and signed his name to the resolutions they had taken, and, on the 1st of this month, the records of the council begin that—

"As the Corporal Jan van der Laak has, for bad conduct, opposition, &c., been placed in arrest by our council, and his situation has, in consequence, become vacant, it was resolved to appoint, in his place, the volunteer Paulus Petkouw, a native of Dantzig, to whom, therefore, the halberd was ordered to be given in presence of the people, as a sign of authority."

And four persons, namely Symon Turver, commander of the yacht, as president; Gerrit Abels, his mate; and the provisional corporals, Paulus Petkouw and Jan van Gulyk, were delegated as judges, to decide the difference between the commander and Jan Van der Laak; and P. Van der Helm was directed to act provisionally as fiscal. The depositions of several witnesses in this case are found from page 1 to 7 of the Attestation Book (from 1652 to 1671). It is from Van Riebeek's diary, however, that we learn "that Van der Laak, for having been guilty of insolence, &c., was suspended from actual service, as might be more fully seen in the records and final sentence," probably Sentence Book. Besides this, Van Riebeek's chief occupation was a trip to Robben Island, in the yacht, to acquire a more accurate knowledge of it, and to ascertain if a whale fishery could be established, and seals killed there, for the benefit of his employers. And, as his store of pearl barley and dried pease began to fail, he brought back a great number of plungeons (duykers), and some hundred penguins and eggs for his people.

He afterwards walked with his carpenters to the back of the Table Mountain, to inspect the woods growing there; about four miles and a half from the fort. He found that the favourable reports which had been made were not without foundation, and the size and height of the trees exceeded his expectations. He remarked at the same time, that the ciphers of the year 1604, 1620, and 1622, were cut upon some of the trees,—showing that these forests had long before been visited by Europeans, but of what nation, or under what circumstances, he could not discover.

On the 24th, it was resolved in council to send the yacht, on a voyage of discovery, to *Saldanha* and *St. Helena Bays*, that his information respecting those places and the coast might be increased, and that he might judge what could be done in more distant parts, for the service of the company.

The end of this month, however, was marked by fresh difficulties. Four men deserted, under the direction of Jan Blank. This appears to have given Van Riebeek great uneasiness; and, as suspicion immediately fell upon Petrus

Janssen Brackenier, he was accordingly placed in confinement. The provisions were now nearly consumed, and could not, at the most, last more than two months. His people were discontented, and he heard murmurs on all sides. To preserve, therefore, the public peace, it became a point of consideration to allow them, under certain conditions, a small sum in addition to their daily pay. One of his volunteers, for mutinous language, was, as an example to others, condemned to be punished with 100 lashes. But the case of Brackenier was left undecided till further information could be obtained.

Nothing else remarkable happened this month, except that two of his clerks, and some other Europeans, accompanied by a Hottentot, named *Harry*, who could speak a little English, ascended the Table Mountain for the first time, and reported "that the top was flat, with a little verdure, and about three times as broad as the dam at Amsterdam, and that there were also some small pools of fresh water.

October.—Although the desertion of four men may now appear a very trifling occurrence, yet, in this account of the first year of Van Riebeek's government, it is an important event, and commanded the attention of himself and his people for at least the whole of the following month.

Brackenier having been condemned to be dropped three times from the yard into the sea, and to receive 100 lashes before the mast, the sentence was put into execution on the 3rd of October; and, to prevent his raising further disturbances amongst the people, he was employed on board the yacht. Shortly afterwards the four deserters returned to the fort,—begging for mercy and forgiveness. Jan Blank had kept a journal, with red chalk, from the day of his departure, the 24th September, to the 30th of the same month, which is deserving of notice,—his being the first journey towards the interior of the settlement

It is somewhat curious that the writer began it in the name of our Lord "Jesus Christ." He states that on the 24th September they, being four in number, set out for the purpose of proceeding to Mozambique,—having with them four swords, two pistols, and a dog. On the 25th they took flight from a rhinoceros, when they lost one sword and a hat. Their dog was also severely wounded by a porcupine. The following day, they kept along the beach, in the direction of Cape L'Agulhas, subsisting upon young birds and shell fish. On the 27th they came to a high mountain, close to the sea shore, and laid themselves down to rest. On the 28th, they supplied themselves with food and water, with the intention of crossing the mountain; and, on the 29th, they set out for

that purpose, but two of them had already begun to repent. They, however, pursued their journey till the next day, when they resolved to return to the fort, hoping for mercy and pardon, in the name of God.

Taking all these circumstances into consideration, it is probable that these men did not proceed further than the Fish Hoek, and the Mountains of Hottentot's Holland; yet from this event was derived the first knowledge of the country in an easterly direction.

The inquiry respecting the misconduct and the intentions of these persons, and several others who were implicated in this business, was carried on till the 10th of the month, when Van Riebeck and his council, who resolved also "in God's name" to terminate this case, sentenced the runaways to be punished after the following fashion:—Jan van Leyden as having first instigated the others to desert, to be bound to a stake, and (he as well as Jan Blank being by the intercession of many persons, absolved from the punishment of death,) "to have a ball fired over his head; and Jan Blank as leader or guide, to be keel-hauled, and to receive 150 lashes; and moreover, together with Jan van Leyden, to serve for two years in chains, like slaves, at the public and meanest works." Their two companions William Huytgens and Gerrit Dirkse, were only condemned to work for two years in chains; and two other persons, suspected of being concerned with them, were absolved for want of proof, and set at liberty. The sentences were put into execution on the following day. In the mean time, the Saldanhians began to show themselves more frequently, and the commander soon had the satisfaction of obtaining from them three cows for copper and tobacco, to the value of 21 stivers and 12 pennings for each; four sheep at the rate of 10 stivers and $1\frac{1}{2}$ penning each; 2 lambs at 5 stivers and 10 pennings; 3 elephants' teeth for 2 stivers 8 pennings (all calculated in copper and tobacco); and finally 2 young ostriches for $\frac{1}{8}$ of a pound of tobacco.

He spared no means in his power to conciliate these people. The Hottentot Harry was employed in this negotiation as interpreter, and broker and barterer, but Van Riebeek much doubted his honesty and good faith.

The work of his labourers now prospered. Their number seems to have been at this time about 100, and by the supply of meat procured from the natives, and by other means, every one set about his work in good spirits, and consequently their prospects began to improve.

The yacht was sent to St. Helena and Saldanha Bays on the 21st of this month, in order to trade according to certain

instructions, which Van Riebeek had given, dated 14th Oct., 1652.

The Saldanhians promised to return soon in great numbers, and with a large quantity of cattle; but the Dutch provisions were nearly consumed.

The month of November had now arrived, and with it, the violent south-east wind, which, to his mortification, did great damage to the fruits of the fields and gardens, and to his newly-erected buildings. No less than 24 persons lay sick at the hospital before the middle of the month. The Governor's only net, a seine, was almost worn out; and he wrote about this time in his diary, "If the Lord God be not pleased to grant soon some relief, either by the Saldanhians bringing their cattle, or by the arrival of ships from the mother country, we have little hope of being able to proceed with our work." But he did not, however, entirely despair.

In the midst of these pressing circumstances, Van Riebeek continued to extend his local knowledge, which he felt to be of so much importance. He conversed at meals with the Hottentot Harry, respecting the nature and situation of the country, and learned from him that there were three sorts of natives which he described in his broken English, as the *Watermen*, the *Saldanah-men*, and the *Fishermen*. He also obtained information respecting their numbers, manner of living, and whatever else might assist his views; but as he looked upon this man as a necessary, although a deceitful and dangerous, instrument, he kept him in doubt by evasive answers, whenever he suggested any treacherous, bloody, or violent measures, for obtaining possession of their persons or property.

About the middle of this month, the yacht returned with a cargo of 2,700 seal skins, and the captain gave him a writen report of everything observed during the voyage. The most remarkable circumstances in this report are an account of his having discovered that a French ship had been sealing there, and a description of the islands and bays which he had visited, together with some insignificant meetings with the natives who had shown themselves at various points on the coast. It is also mentioned on this occasion, that Jous Spelbergen, a Dutch admiral, had visited the coast in 1601, and had given the name of *Elizabeth Isle*, to what is now called *Dassen Island*.

At this time the Saldanhians began again to bring their cattle, and Van Riebeek had hopes of being more successful in his trade with them. He endeavoured by friendly treatment to increase their attachment towards his people; and

observed their manners and dispositions. They carried their milk in large leathern bags, and caused their children to suck the udders of the sheep. Upon the whole, they found this tribe to be naturally kind and timorous.

Harry's suspicious conduct got worse, and Van Riebeek was inclined to send him and the other waterman to Robben Island. He, however, deferred his intentions till he should obtain further proof.

The last month of this first and most remarkable year of Van Riebeek's government, now commenced. His circumstances began to improve, and the cattle-trade and good understanding with the Saldanhians continued to increase; he also received from them 12 ducks and 42 other beautiful birds. He was, however, obliged thus early, on account of the many thefts and other crimes committed by his own people to appoint one Michael Geive, public executioner, who was soon required to exercise his functions upon Jan Pieter Svenwater.

During this month, he attentively observed the course of a *comet*, and seems, by some remnant of superstition, to have feared that the appearance of the wandering body portended some ill.

The Saldanhians, who had fought with the Fishermen, and killed four of them, endeavoured to instigate him to make common cause against that horde, whom they represented to be nothing but robbers. But the commander rejected their proposal, as he had before done the suggestions of Harry, *and declared his desire to live with all the natives in peace and amity.* He obtained more cattle by barter; and towards the end of the month, after so much care and anxiety, he had the pleasure of writing in his diary with a quaintness of style peculiarly his own:—"We are, thank God, so far advanced, that the sick can be supplied with milk and buttermilk and eggs; the fowls are breeding well; but the pigs and pigeons do not appear to thrive, inasmuch as the pigs have not yet brought any young, and from eight pigeons no more than seven have been produced, so that we have but fifteen in all."

However the gathering of seed from several sorts of vegetables succeeded according to his wishes, and we find the first governor of the colony congratulating himself—

"That the cabbages begin to close, and the carrots increase in size; and he and all his people ate mutton daily; that the churn was going on tolerably well, so that he made six pounds of butter, and could sometimes give his people buckets of butter-milk, which would prove no small refreshment to the persons on board the ships touching here; and that he only wanted utensils to make cheese, as matters relating to

the cattle had so much improved that he could eat fresh butter daily, leaving his Dutch butter for cooking, and baking bread from his new wheat."

He had already taken measures for supplying refreshments to the ships expected here; and hoped thus to prove that the object of his mission had been attained at so short a time; and that he had, by his diligence and industry, not only succeeded, at the outset, in establishing a place for refreshment here, but also, it might be confidently expected, that the wants of the company's vessels would, in future, be better and perfectly supplied.

Finally, a favourable report, that about 500 Saldanhians, with a large quantity of cattle, were at Hout Bay, at the back of Table Mountain, about twelve or fifteen miles from the fort, and appeared inclined to continue the trade with him, closed the last day of this memorable year.

In addition to the occurrences which have been narrated as having transpired during these twelve months, we find, from the records, that, during that period, Van Riebeek's mind was occupied with other important projects,—the principal of which was the intention to introduce slavery, as a necessary evil, arising from the want of a labouring class. Besides this, he felt anxious to establish a commercial company, for obtaining gold, ambergris, musk, and skins, whale oil, skins, elephants' teeth, ostrich feathers, salt, and other articles of trade.

His official letters to Batavia, and more particularly those to the directors, in Holland, afford as complete and distinct an idea of the situation of himself and his companions, as could be wished, and convey clear views of his operations. But we may, at the same time, perceive from them that, wearied out by numerous troubles, he was already anxious to be relieved from the command of the Fort Good Hope; and, writing on this subject, he styles his expected successor "a deliverer," and his desired departure for Batavia "a deliverance."

Thus ends the first year of Van Riebeek's Government of South Africa—his views, plans, labours, fatigues, and disappointments. *Santæ molis erat Romanam condere urbem.* Many changes and developments however, it may be readily imagined, were necessary yet, ere Cape Town could become the Rome of the Southern Hemisphere.

P. B. B.

Wynberg, August, 1857.

GROWLS.

BY SENEX.

——"He was
The impersonation of an age that never shall return."—BRYANT.

I AM one of the old school, and, thank Heaven, full of what it is now the fashion to call antiquated notions and tastes. My predilections are for the past; I adhere warmly to the good old prejudices of the good old times, and sigh over the memory of the golden age when men enjoyed innocent sports with the zest of childhood; when railroads, electric telegraphs, photography, and similar abominations were unknown; when the land was free from the nuisance of universal learning, and when ignorance was, in truth, bliss. I am proud to maintain so pure a taste in this radical superficial age, where our ears are daily stunned by the announcement of new discoveries. New discoveries, indeed! I should like to see a comparative table, showing the relative proportion of the good and evil resulting from your precious new discoveries. Strychnine, cholera morbus, Moorsome shells are new discoveries. At all events, they were not known in the good old times. Science is the bane of sentiment, and has been the destruction of imagination and romance. The cherished traditions of a thousand years, the legends to which the heart of a whole nation cleaves with pride and fondness are remorselessly trodden under foot by science and its utilitarian doctrines.

Yea, the great globe itself is all but stripped naked by the inquisitive hand of science. There is not a corner of the world safe from some double-barrel-gunned, partridge-shooting Englishman—some spectacled, beetle-catching German, some tobacco-chewing, dollar-worshipping Yankee. There was a time when mother Earth had her secrets, and when her sons reverenced them. There was a period when the mere inspection of the map of the world enlarged the imaginative qualities and awakened the profound emotions created by the contemplation of the UNKNOWN. But now!—alack, all is laid bare, all is known and dull. Where is El Dorado, with its wondrous lake and its golden-roofed domes? Gone! Where is the great Ethiopean monarch, the descendant of Solomon and Sheba—Prester John, whom Asia reverenced, and to whom Europe sent embassies? Spunged out of existence like the Cacique of Poyais! What has become of Laputa, Lilliput, Brobdignag? Destroyed by Cook, Wallis & Co.! Where is the great southern land inhabited by Peter Wilkins' flying glums and gawries? What has Captain Sir

James Ross done to replace that charming creation? Can his new discovery, South Victoria, with its penguins, supply the place of Grandilovet and Youwarkee; and will Mount Erebus, aye, with Mount Terror to boot, atone for the demolition of Mount Arkoe?

It is grievous to contemplate the result of this destructive inquisitiveness—this sacrilegious, unholy Paul Pryism. The Niger, the subject of the conjectures of Ptolemy, of Edrisi, of Leo Africanus, the grave of Mungo Park—the silent way to Timbuctoo—is as well known as the Thames; and the horrent mystery which, from before the days of Mizraim, shrouded the source of sacred Nile himself, is about to be profanely rent asunder by an exploratory party,—an expedition dispatched for the express purpose of stripping off the veil that shelters the awful countenance of the Father of Rivers! Where is all this to end? When is this desecration to cease? Is it not enough that Smith has painted his name, in letters a foot long, on Pompey's Pillar,—that Thomson, in contempt, perchance ignorance, of Cheops, has drunk beer on the summit of the immortal pyramids,—but that Brown, Jones, and Robinson must thrust their impertinent noses into the dark secrets of the hoary past—destroying what they cannot replace, like the barbarians who *utilize* the works of Phidias by converting them into lime.

I blush for the impertinences of science. I have repeatedly refused the offer of the Astronomer Royal to inspect the moon through his big telescope, partly because I would not help to disprove the allegation of the old song that "the man in the moon drinks claret;" and partly, because, if he does (may he drink nothing worse), I scorn to spy upon a gentleman engaged in a rational and pleasing occupation.

Nothing frets me more than the clack that is made about the electric telegraph. This girdle round the earth, never dreamed of by Puck, acts like a shackle on the mind, and contracts all expansion of ideas. We were wont to talk of the boundless horizon, and the illimitable deep, and our minds expanded with the greatness of the subject. There are no such things now as boundless lands or seas. Infinity and space have disappeared, and the mind grasps the uttermost bounds of the earth as easily as the hand fingers an orange. The day draws nigh when some pale-faced Cockney shall flit a message for cheap teas, through the waters which Bilboa, on sunken knees, beheld with speechless reverence and solemn ecstacy, from "a peak in Darien." Can we imagine a more perfect illustration of bathos, a more rapid descent from the sublime to the ridiculous?

Poor Mat Lee! men said thou wert mad, and it was deemed a flight beyond the limits of reason when thou didst invoke the immortal gods to "annihilate both space and time, and make two lovers happy." Behold thy glorious rant has degenerated into sober fact. The fustian of the stage has become a solid reality,—palpable and dull as the two-penny post. Little, too, did Samuel Johnson. when he depicted his once famous image,

"And panting time toiled after him in vain,"

dream it would be literally, mechanically, prosaically realised. Time now is nowhere; the hours laugh at him; the minutes beat him; Time—honoured, aged Time—is left in the rear by this invention, the precursor of chaos.

What I most lament, as one of the results of this practical iron age, is its pernicious effects on youthful literature. I consent to give up chivalry and its romances. Amadis of Gaul requires a good constitution to get through. The Grand Cyrus is as dead as its subject; and, as for the Arcadia, I should like to meet the man, woman, or child, who can wade through a fourth of it. No—

"—The good knights are dust,
And their swords are rust;
Their souls are with the saints, I trust."

"And there's the end of an auld sang." But the fays and faireys, elves and brownies, who, with Oberon, Mab, and Robin Goodfellow, haunted every dell "when England *was* merrie England," and danced in every vale, whose beneficent acts or waggish pranks were the delight of the noble and the serf, the man and the child,—those graceful beings whom the hand of Shakespeare himself could not invest with greater attractions than they possess in the tales and ballads of the peasantry;—I cannot give them up without a sigh. This age, however, "has crushed, without remorse, their numerous band," and the fairey is as extinct as the fawn of megatherium. Personally, this does not affect me. My May * of youth has long fallen into the sere and yellow leaf, yet, for the sake of childhood, I mourn the loss of the good old story books of the past. The tales which charmed my youth, roused my juvenile sympathies, awakened my childish joy or sorrow, which developed in the child all the better and purer emotions, are banished the nursery, as too puerile for infant minds!

* I stoutly contend for Johnson's reading. It is one of the few indications we possess that the "erudite savage," as Coleman calls him, had, after all, a little real poetry in his soul.

Never again shall I weep over the Yellow Dwarf; never again visit Fairey Land in the goodly company of Prince Percinet, or the Fair One with Golden Locks; never again enjoy the humour of Riquet with the Tuft; or pity the maltreated Cinderella;—yet I feel that the little people around us are robbed of pleasures, innocent in themselves, and of which we, of the past generation, derived the free enjoyment. Enter a bookseller's shop now-a-days, and ask for Jack the Giant killer. You might as well expect to obtain a Valdarfer Boccaccio. "More useful works" are now provided for little ladies and gentlemen of six years of age; Jack and the Bean-stalk has made way for an Introduction to Botany full of choaking technicalities; a treatise on the steam-engine supersedes the Seven-leagued Boots; the veracious life of Tom Thumb gives place to Mrs. Twaddle's Little Stories from History; and the Seven Champions have long since fled before the withering face of Peter Parley. We are, in short, serving out tough beef where mother's milk is the natural diet. The result is, that the human race is retrograding. No great poet, no great orator, has arisen in this era of new-fangled sciences. For my own part, I have read no book published within the last twenty years. I bring up my family in my own tastes. My boys, I am happy to say, don't know oxygen gas from platina, nor are my girls "up" in the physical sciences or Mrs. Somerville or Miss Martineau; but they know all the fine old ballads, from "Chevy Chase" to "Admiral Hosier's Ghost;" study geography and ethnography in Robinson Crusoe and Capt. Lemuel Gulliver, and history in the "Adventures of King Arthur." I cannot say they are the worse for this course; I rather think them the happier and better. Oh, reader, if thou hast a boy and would cheer his young heart, and keep him young till, in due time, he grows old, disburse half a crown in the purchase of a good old-fashioned story book, such as you devoured yourself in earlier and more joyous days. As he peruses it, the working lineaments of his countenance and flash of his eyes will betoken emotions of pleasure and interest which all the treatises on the steam-engine that ever were written will fail to produce.

(TO BE CONTINUED.*)

* This notice has been appended by *Senex* himself. We warn him that to secure admission into our pages again, he must shew more respect for the grandeur of the discoveries which he now so growlingly decries. Let him read Cinderella, or the Fair One with Golden Locks again, and his humour, we trust, will be considerably sweetened.—EDS.

BRITISH KAFFRARIA.

Far less is known of Kafirland, either in the colony or abroad, than should be known. In several districts of the colony to many it is quite a *terra incognita*, often talked of, often described as flowing with milk and honey, and withal pleasant to the covetous eye of the speculative land-jobber; but infested with enemies, cruel, treacherous, and savage. And that is about the extent of common information regarding it. Abroad it is very generally confounded with the Cape of Good Hope itself. Kafirland is supposed to be the colony, and the enterprising European settler, wherever he sets foot on the shores of South Africa must inevitably encounter "the barbarous, prowling Kafir." In a puffing pamphlet, published by the promoters of Canadian emigration, the emigrant to the American colonies is informed that he will meet there with a country which "is advancing with a noiseless step towards the goal of wealth and prosperity;" while the simpleton who is mad enough to venture colonization at the Cape is exposed "to angry and incensed Kafirs, who may at any time sweep off the whole of his hard won property." It is high time that this colony should be presented to European emigrants in its proper light, and that without more delay they should at least be told that the Cape of Good Hope and Kafirland are two very different places; that over three-fourths of the whole area of the colony they will not approach within two hundred miles of the Kafir boundary; while the Kafir territory itself is exceedingly limited in extent, and its native population, as a separate people, are fast breaking up and disappearing. British Kaffraria is in area not more extensive than the single division of Caledon, or less than the one seventieth part of the area of the colony; while the whole of Kafirland Proper, from the Kei to the Umzimkulu, does not equal the conjoined extent of George and Uitenhage.

The best and most graphic description of British Kaffraria that we have seen has been written by Sir George Grey, in an admirable despatch which appears in the recent Colonial "Correspondence" Blue-book; and to diffuse more widely the information it contains, we shall quote freely from its pages. Of the physical structure of the country, and its geographical extent, the Governor gives the following account:—

"It is bounded on its north-east or inland side by the Amatola range of mountains, the highest peak of which is about 4000 feet high. This range runs nearly parallel to the sea, at a distance of about fifty miles from it. Inland of this range are high open grassy plains, at present uninhabited, extending far inland and forming no part of the province of British Kaffraria,—the limit of that province being the highest ridge

of the Amatola mountains. The seaward side of the range is intersected by deep, rocky kloofs, clothed with forests of large trees, in which many rivers rise. These kloofs open, even in the mountain range, into wide and fertile valleys. From the base of the range an undulating country, sometimes rising into high ridges, falls away to the sea, which is cut through in some places by rocky kloofs containing forests. The country is generally clothed with rich grass, covered with clumps and woods of mimosa bushes. It is in every direction traversed by rivers or small streams. It is separated from the colony, on the western side, by the Keiskamma River, which rises in the Amatola range, and runs between the colony and British Kaffraria to the sea. Immediately on the right bank of the Keiskamma, a narrow line of scattered colonists has been located. In their rear, and between them and the main body of the colonists, large tribes of Fingoes have been heaped together in locations containing many thousand souls. It is separated from Kaffraria Proper, on the eastern side, by the Kei (distant from the Keiskamma about sixty miles), which likewise rises in the Amatola mountains. A small part of British Kaffraria stretches along the Kei into the colony. But the boundaries I have above roughly stated are sufficiently accurate for this report."

From this description it appears that British Kaffraria is only a narrow strip of country, some sixty miles in width, and some seventy or eighty miles in length; but fertile, well watered, and richly grassed, and therefore capable of supporting a very dense population and a large amount of stock.

The population of the province now must be considerably different from what it was a year ago, when the despatch was written. Probably not fewer than 30,000 Kafirs have immigrated into the colony within the last twelve months, and of these certainly three-fourths have come from British Kaffraria. The native population when Sir George Grey wrote to the Colonial Minister was estimated at 90,000. Of these 38,000 were estimated to be Gaika Kafirs, 39,000 as Tslambie Kafirs, and 5000 as Galeka Kafirs; while the remaining 8000 were Fingoes. The European population, at the same date, consisted of but 1200 souls exclusive of the military. To these, however, must be added now a considerable influx of settlers from the colony, besides the 2500 German Legionaries who may be more appropriately ranked as colonists than as soldiers.

Of the character of the native population, their distribution, their system of life, their tribal arrangements and organization, and their social customs generally, we have the following graphic and accurate picture from the Governor's pen. The quotation is a long one, but it is interesting and valuable:—

"Throughout Kaffraria, the natives live along the ridges and slopes of the hills, which bound the courses of the streams, in collections of huts, termed kraals. The huts are shaped like a bee-hive, built with a framework of poles, then plastered with cow dung, and thatched all over with grass. They are about six or seven feet high, with a diameter of from

fourteen to eighteen feet. They are inhabited generally by the family sprung from one wife, as well as by some of her relations, consisting, in the whole, on the average, of about four or five souls.

"The number of huts composing a kraal or village varies exceedingly, but the average number of inhabitants in each kraal, including men, women, and children, is about twenty or twenty-five. The average number of cattle attached, in ordinary times, to a kraal is about one head of cattle for each human being. Each tribe resides in this manner, in a separate district of country, under its own hereditary chief, although they are occasionally intermarried.

"The most numerous of their tribes consist of upwards of 17,000 souls, the weakest of about 800; the total number of tribes in British Kaffraria is 14; the average strength of each tribe is at least 5,500 souls. The entire number of adult males, capable of bearing arms, must be upwards of sixteen thousand, a considerable proportion of whom are armed with firearms, the remainder with assegais.

"Each tribe is governed by an hereditary chief, who is assisted, in all public matters, by a certain number of hereditary counsellors. All cases of importance are heard and decided by the chief and some of his counsellors, who impose a fine (almost invariably so many head of cattle and horses) upon the party to whom they attribute guilt. The fine is levied by the proper officers, and, upon its being brought to the chief's kraal, these are first paid, from the fine, for levying it; the chief then takes such portion, as he pleases, for himself, distributing a part of this amongst the counsellors who heard the case; the remaining portion of the fine, in a private case, is handed over to the complainant, who shares his portion amongst those of his friends who assisted him in the conduct of the case, the collection of the evidence, &c. All persons, who are members of the tribe, are regarded as the absolute peoperty of the chief. Hence, in all cases of murder, or acts of violence committed on the person, the whole fine imposed and levied, in the first instance, is taken by the chief, although he again gives a share of this to his counsellors.

"The fines thus taken for the administration (as it may be termed) of justice constitute a very large part of the revenue of the chief; and as the counsellors generally only remain for a few weeks about the person of the chief, being then succeeded by others, the same fines enable him also to maintain about him, at all times, a certain retinue of attendants, to whom the same system of fining becomes a source of considerable profit, as it is also to all the petty officers employed under the Kafir system of polity.

"The alleged offenee of witchcraft (a public crime) subjects a person found guilty of it to torture and death, and the total confiscation of his property. No sooner, therefore, does a person grow rich, than he is almost certain to be accused of this offence, and is, at least, stripped of all he possesses.

"The Kafir tribes, as a whole, are under the direction of one hereditary paramount chief, Kreli, who issues, on certain subjects, his orders to them, and whom they regard as their paramount ruler. This chief resides out of our territories, in Kaffraria Proper, owes us no allegiance, and in no way recognises our authority.

"Each tribe inhabits a separate district of country, called here a location. As I have already stated, their kraals or villages are placed along the grassy ridges and slopes of the hills, which bound the courses of the streams. The country is very rich in grass, and carries a very large proportion of stock, compared with its extent; hence, it is densely inhabited (the proportion of inhabitants is, in some places, thirty-two

souls for every square mile), and several kraals are nearly always in sight of each other; and the war-cry being raised at any of them, spreads from one to the other, on every side, with wonderful rapidity, and soon reaches the extremities of Kafirland,—so that continuous streams of warriors, led by their proper petty chiefs, coming from great distances, soon hurry, from various directions, towards any point which has been indicated in the alarm which was raised.

"These warriors are also generally found ready to take the field at a moment's notice. For the greater part of the year they lounge idly about their kraals, throughout the day,—their pursuits being principally pastoral, varied by occasional hunting parties, in their own immediate neighbourhood, or dances on such occasions as weddings, &c. The men milk the cattle, enclose their cultivations and cattle kraals, and build the frames of their houses. The women thatch the houses, collect the firewood, and perform the principal part of the field work. In the months of September, October, November, and the early part of December, the ground is cultivated, and the harvest is gathered in at the latter end of February, and the beginning of March. They rarely, or never, wander with their cattle from place to place,—the pasturage around each kraal being amply sufficient for their wants. At present, they confine their attention to horned stock, horses, goats, and poultry.

"Each watercourse, or rather the group of kraals in the country, on each side of the watercourse, is under the authority of an hereditary petty chief or headman, and each such group of kraals is again broken up into minor subdivisions, which are placed under hereditary chiefs of a still more subordinate rank. All their petty chiefs act under the orders of the principal chief, from whom they derive their authority, and any remuneration which they receive in the form of fees, paid in cattle, horses, goats, and assegais.

"It will thus be seen that each location of a chief contains, in point of fact, a standing army, properly officered, maintained in a certain state of discipline, ready to take the field at a moment's notice, and subject to the direction of an hereditary chief, who is assisted, in all his decisions, by hereditary counsellors, a number of whom are always in attendance upon him. The system of organization is complete; the position of the hereditary counsellors, of the numerous hereditary petty chiefs, all depends upon the authority of the principal chief being supported,—a system in the efficient maintenance of which so large a number of persons are interested, and which is, moreover, interwoven with all the customs of the people, and supported by superstition, and by that veneration which long antiquity always commands, is very difficult to shake or overthrow."

Sir George Grey next proceeds to develop the policy which he has adopted in the government of the country, and in his design to introduce among the people the laws and customs, and ideas of more civilised European life. It is not our business here to pass any opinion on the merits of that policy, or bring it into comparison with the systems adopted by previous governments. We are anxious mainly that the public should have a clear perception of it in its leading outlines. The despatch proceeds:—

"It has been seen that in each location lived one or more haughty hereditary chiefs, surrounded by their own counsellors and retainers, administering such laws as they thought proper, each maintaining a large

standing militia entirely under their own orders and control, well armed, in a state of perfect organization, ready to take the field at a moment's notice, in the immediate vicinity of a scattered and comparatively very small European population, whose property was a constant source of excitement to their cupidity. A large force, recently averaging six thousand men " (and more recently still, ten thousand men) "has been maintained here by Great Britain, to protect these scattered European settlers from their barbarous neighbours. These British troops have been stationed either within the Colony, to defend the border, or in British Kaffraria, in the vicinity of the chiefs' locations, to keep their followers out of a large tract of territory (forming one fifth of the whole of British Kaffraria), called the Royal Reserve, which, as being a Kafir stronghold, we did not choose they should occupy, on account of the difficulty we should have had in driving them out of it, in the event of another war.

"The territories occupied by Kafirs, and termed locations, the chiefs are said to hold as a conquered people (although it is admitted that they have never been conquered or subdued); that is, their lands are held only during pleasure. The Crown takes whatever tracts of country it requires for forts, and requires the people on such tracts to move—(the size of each such tract is a circle, with a diameter of four miles). The Crown also assumes all lands it requires for roads (reserving such breadth as it pleases on each side of the road,—in the instance of one road sixty miles long, two miles has been reserved upon each side of it); or for quarries, or for other public purposes. The Crown gives to private persons licences to quarry or cut timber on the land occupied by any chiefs and their followers. The chief can give no such licence. Thus, throughout British Kaffraria, the native has no recognised right or interest in the soil. There was no tie whatever, in this respect, between the chief and the Government. On their own hereditary lands, the Kafirs were strangers, to be required at any time to move from the most cherished spot, without any reason for their being required to do so being assigned.

"There was no bond of union between the Kafir chiefs and the Government. They, isolated with their retainers, lived secluded in their territories, kept down by an armed force, watching every movement they made in what were once their hereditary dominions.

"The only medium of communication between the Government and the Kafir tribes were two commissioners, one for the Gaika tribes, one for the T'Slambie tribes, who arranged disputes which arose between Europeans and natives, and inquired into cases of robberies or outrages which occurred upon roads running through native countries, carrying out such cases through the chiefs, simply using such influence over them as could be exercised by argument and persuasion.

"The best hope that presents itself to my mind, for the future, is that of adopting the Kafir system of polity into our own; that is, instead of leaving them as something beyond and distinct from the Government, attempting to make every chief of importance look to the Government for his remuneration, and requiring them to carry on those duties of magistrates, police, &c., which they exercise at present under the direction of British officers. In this manner the Government may, by degrees, gain a hold over every part of British Kaffraria. It may improve the tenure on which the chiefs and people hold their lands, and give them a vested interest in the soil. It may greatly increase their facilities for trade, whilst, by availing itself of the complete system of organization which already exists, the Government may make the Kafir

system a part of the government of the country, with which the whole of the native chiefs may, by degrees, become so interwoven that they will, in fact, be, as it were, incorporated or adopted into the Government, of which they will form a necessary and important part.

"If such a result can be arrived at with the tribes of British Kaffraria, they will then form a barrier against the tribes beyond our limits. The great difficulty in carrying out these changes, and in rendering them permanent, is the danger constantly existing that war may again break out before the Kafirs, as a nation, have fully understood and appreciated the benefits which are being conferred upon them.

"But even, if such an untoward event does take place, I still think that the only hope for the future is a steady return to the same principles, the moment that such a war has been effectually crushed. So impressed have I been with the belief that the development of this policy presented the only hope of, by degrees, putting an end to the evils which have, for so many years, afflicted this frontier, that I have never ceased to labour towards this end; and, at the present time, in so far as British Kaffraria is concerned, every chief has consented to exert himself to bring about such a change as I have proposed. Every chief is therefore, at the present time, acting under the direction of Government, and as a recognised agent of the Government. But there is still this difficulty in the way, that the admitted paramount chief of all Kaffraria resides beyond our limits, in no way recognises our authority, and is, I fear, inclined to throw every obstacle in the way of changes, which he regards with jealousy."

The paramount chief referred to here is Kreli. His power for evil now is, of course, much diminished by the extraordinary occurrences of the last twelve months; and he is now a suppliant at the mercy of the British Government. How far his recent parade of penitency has been sincere, and his present declarations of allegiance are genuine, it would be hard to say.

THE JEWS IN HOLLAND.*

TRANSLATED FROM THE FRENCH OF ALPHONSE ESQUIROS.
BY H HALL, ESQ., R.E.D.

CHAPTER I.

THERE exist a mysterious people, well worthy the attention of historians and moralists. Born in the desert, the caravan is their emblem; they have drunk the waters of all rivers, from the warm Nile to the icy Neva; they have hung their harp—its strings relaxed by the tears of exile—on the willows of Babylon, on the oaks of Gaul, and on the black pines of Norway; they have helped to build the pyramids; they have seen the Pantheon fall to decay. Their life, religious, poli-

* Revue des Deux Mondes.

tical, and civil, was concentrated in the temple of Jerusalem; the temple is fallen, yet the nation still subsists. Without a country it adopts the manners, the customs, and the civilization of all it wanders through. Such as it is depicted on the monuments of antiquity in the East, such is it found on the present day. It sometimes borrows from the northern nations their blonde hair, their blue eyes, their dull fairness; but it preserves, under all these local transformations, its own ineffaceable character, its Semitic features, its grave and vigorous profile. Its songs, introduced into the ceremonies of many other religions, fill the world. Always proscribed, always despised, it shows itself superior to those who oppress it; its patience has tired out all persecutions, and vanquished all legal resistances. Tossed and driven about the world like a withered leaf, it has passed for near two thousand years to and fro amongst the civilizations of Christendom, who look on it as a living witness of Divine retribution.

A very general error dates the ubiquity of the Jewish race from the destruction of the second temple by the hands of Titus. This is certainly the epoch of the great dispersion of the Jews; but authentic records testify the establishment, not only of certain families, but of numerous Hebrew populations in many parts of the world, from a period far more remote than the ruin of Jerusalem; the construction of the second temple being only by the remnant of the people, the greater part of whose tribes were already dispersed in the extreme East. We find, even in Abyssinia, a Jewish branch, whose traditions mount up to the times of King Solomon. All which has passed since that time in Israel is as if it did not occur to these families thus early separated from the parent stem. The opinion of travellers and of the Rabbins is, that the Jewish colony of Abyssinia was planted in Africa by the Queen of Saba. China also possesses a colony of Jews, who quitted their country before the last catastrophe. At Bombay alone they reckon five thousand of these Indo-Chinese Jews, who principally occupy themselves in agriculture and the manufacture of oil. They do not possess any manuscript of the law; but their religious ceremonies, and their faith in the unity of God have resisted the influence of the atheism which surrounds them. They know Hebrew, although imperfectly, and pronounce it badly, because the Chinese language does not possess all the sounds necessary for the articulation of their primitive idiom. Some among them have attained the dignity of Mandarins. It is difficult to fix the date of their emigration; however, different circumstances lead us to conclude that the Israelites of Bombay

were established in China at the epoch of the captivity of the ten tribes. One thing appears certain, that their residence in that country was anterior to the birth of Christ, as they have learned that name only from the mouths of the missionaries. India has equally received, at a period which seems to be very remote, some colonies of a people scattered, at the present day, over all the earth. If what remains of these ancient colonies were collected together, and their traditions compared one with another, we would recover, without doubt, bit by bit, all the history of Israel in a sort of living bible.

Facts like these show, in the Hebrew race, two very strong faculties,—a desire of expansion and a marvellous tenacity of national character. Other races of the East, the Hindoos for instance, have been perpetuated on the earth, and have maintained, with purity of blood, a part of their religious usages; but it is just to remember that these old families of the human race, never having been displaced, have found, in their country, natural limits, which preserved them against the influence of modern civilization. This is not the case with the Israelite race. Mixed amidst other people, with whom they associate, without confounding themselves with them, this nation alone presents the historical phenomenon of a nationality which refuses, in spite of time and direct contact, to amalgamate with any other race, or adapt their religion or social forms.

The Jews are scattered all over the East, as well as in the West. In no country, however, do they meet with all the conditions favourable to the interests of their religion, and their race, so completely united as in Holland. It is there then we must pause to question the Jewish nation on its past grandeur, as well as on its future destinies. Two classes represent it on the Dutch territory,—the Portuguese or Spanish Jews and the German Jews. The history of these two emigrations,—the character which they have assumed in Holland, the institutions and manners which have distinguished them, and the ideas which we can derive from their actual situation in regard to the branches of Jewish society scattered through other countries,—these are points which will suffice to indicate the extent of the questions which the state of the Jews in Holland will give rise to. We will take, for the outline of our researches and observations, the work of a Dutch Jew, who has undertaken to establish the historical tie between the Jews of the low countries and those of England, of some of the German provinces and of the new world.

CHAPTER II.

We must here go back to the events which led to the establishment of the Israelites on the soil of the Netherlands. After the taking of Jerusalem, by the Romans, some Jewish families established themselves in Spain. They there found traces of old colonies, founded, in ancient times, by their ancestors. A touching reason, no doubt, had determined the fugitives to plant their colonies on the Iberian peninsula. There exist between Spain and Palestine many very striking points of resemblance. These families prospered. The condition of the Spanish Jews was far different to that of their race in other countries. During the middle ages, they continued to cultivate, under the propitious skies of Iberia, arts, letters, and sciences. Their intelligence, developed by a social state which went back to the highest antiquity, gave them a completc superiority over the other inhabitants of Europe. The writings of the Rabbis served, in these barbarous ages, to preserve some pages of the ancient philosophers and certain literary monuments of antiquity. The educated Jews also attained, in Spain, a degree of consideration, denied them in other countries. The invasion of the Moors placed them, for some time, in a painful position. Tossed about between the new conquerors and the Christian populations, it often happened that they were ill-used by both, and if some historians assure us that they favoured the Moors, others testify that the Jews took up arms to defend their old masters against foreign invasion. In a little time, their situation grew brighter, and the Jews were employed as interpreters or diplomatists, functions for which their intelligence, and their position, as an intermediary race, well fitted them. Another thing also served to increase their social importance. They treated with the new conquerors on a footing of equality. Their common origin (for the Jews form a branch of the Semitic tree), the tournure of their oriental spirit, their national language, all resembled that of the Arabs. The Jewish schools of Cordova, Toledo, Barcelona, and Grenada, acquired, under the regime of the Saracens, a great degree of eminence. Frequented by crowds of students, they kept alight the sacred flamc of knowledge in the midst of the thick darkness of that epoch. Talmudists, poets, astronomers, philosophers, jurists, issued in crowds from these schools. The Rabbi Judah Ben Levi, author of a treatise on the right of woman, the poet Gabriel, the famous Maimonides, and many others, whose names and writings have survived to our own times, testify sufficiently that the ray of intellect had not fallen, with the crown, from the brow of Israel.

The Jewish doctors had in Spain, above all other countries, a monopoly of the medical profession. The passage of the Israelites to the shores of the ancient Iberia has left a lasting souvenir in the hearts of their descendants. One of the first lyric poets of Holland, M. da Costa, belongs to one of these old families to which Spain was, for centuries, a country of adoption. Although converted to christianity, this distinguished poet has not abjured his quality of Jew. "I confess," he says, speaking of himself, "although, by the grace of God, a disciple of Jesus Christ, I have not ceased to be an Israelite." Under the title of "Israel and the Gentiles," he has written, in Dutch, a curious work, which breathes forth a most lively sentiment of nationality. "From my earliest youth," says M. da Costa, "the history of my ancestors has been the object of my meditations and my studies. The modern portion of this history has above all attracted my attention, and it is with my heart and imagination captivated by the destinies of Israel that I have undertaken to explore the annals of the dispersion and the exile. The life of our ancestors in the Peninsula," he adds, "constitutes, for the Spanish Jews, a terrible, but imposing recollection, veiled by a display of sombre grandeur, as if with a cloud."

In the meantime the fiery blasts of persecution blew on the Jews from all points of Christendom. Every one knows what was the position of this unhappy people, in the European states, during the middle ages. Covered with legal ignominy, separated from other classes of the population by injurious ordinances, and by exterior signs, which affixed infamy to all of the unfortunate race, condemned to the lash, and all sorts of corporal violence. They had to purchase, any where, the right to live, at the price of intolerable sacrifices. The most absurd fables excited the multitude against them. They spake vaguely of children kidnapped and massacred by Jews. Interest conspired with superstition, against these unhappy exiles. Those popular movements, provoked by a fanatic rage, always ended in pillage, confiscation, and spoliations of every kind, and formed the invariable terminations of each act of this long and bloody tragedy. Every thing was permitted against the cursed nation.

CHAPTER III.

Spain could not escape the influence of such religious and selfish hatreds. On the 2nd of January, 1492, the Crescent finally disappeared from the Iberian peninsula. Infatuated by their conquests, and urged on by the strong arm of the inquisition, Ferdinand and Isabella took then a resolution, the conse-

quence of which was to cover their fair kingdom with grief and desolation. It was decided that, for the future, no heretic, Mahommedan, Jew, or pagan should sully the soil of Spain. This news broke like a thunder-cloud over the devoted heads of the Jews. One hundred and sixty thousand families established, since time immemorial, in the country, were about to be banished by a fanatic zeal, and by an insatiable avarice, from a land where were the tombs of their ancestors. The Spanish Jews offered the king a considerable sum, to prevent the execution of this cruel measure. The king hesitated; but Torquemada, the chief inquisitor, interfered, and asked boldly if His Majesty wished to follow the example of Judas Iscariot, and betray Christ for money. The edict of Ferdinand and Isabella, ordering the expulsion of the Jews, was signed in one of the halls of the Alhambra, on the 30th March, 1492. The Jews were the only subjects of the kingdom who possessed great fortunes. They were permitted to dispose of their estates, but this seeming favour was, in reality, a mockery. A house was exchanged for an ass, a vineyard was given away for a mantle. The day of the great dispersion arrived. On that day eight hundred thousand persons assembled from all the provinces,—women, children, old men, sick, set out on their second exile. "And God conducting us," as one of them has said, "we set out,—the rich providing for the expenses of the poor, with prodigal charity." Owing to this assistance but few only of the most necessitous remained behind, as converts to christianity. On foot, on horseback, on asses, or in wagons, were to be seen those unhappy wretches—sad and touching spectacle!—streaming along the highways to the frontiers. The rabbis encouraged them. They made the women and children sing: they caused the spirit of the multitude to be kept up with lively strains of the flute and tambourine. The mass was composed of working people, who gained an honourable livelihood in different manual professions. Long practice, joined to a cultivated mind, had made them far superior to the labouring classes of the Christian populations. A blind policy thus deprived Spain of hands which had elevated her industry to a flourishing state, of men of science and of talent, who had filled her with light in an age of gross ignorance. The profession of medicine was almost entirely in the hands of the Jews, and the Christian population, after their expulsion, found themselves suddenly nearly deprived of the resources of the healing art. The manufactures of the Peninsula received a mortal blow. Academies, schools, learned societies, all were destroyed. The edict forbade the

Jews to take away with them either gold or silver; but they, nevertheless, carried with them large sums concealed in the saddles of their horses. Some of them even let themselves be plundered of a few ducats, in order to deceive the strict searches of the custom-house officers on the frontiers. Important, however, as was the sum thus taken out of circulation, the moral loss which was sustained by the removal of this industriousand enlightened population was still greater. M. da Costa remarks rightly that if the Jews, at the period, had not had their eyes fixed on Palestine, as their only true country, they would have been strong enough easily to have overturned the Spanish Government.

(TO BE CONTINUED.)

LITERARY REVIEW.

Mr. Justice Watermeyer's Lectures on the History of the Dutch East India Company's Government of the Cape are already well known to most of our readers. Those to whom the work is not yet known we strongly recommend to procure it without further delay. It pours a flood of light upon the history of the colony, which makes clear and intelligible many of the strange problems that seemed formerly so insoluble. It completely answers the enquiry so often put, why South Africa has made such slow advances in colonisation, though established now for more than two hundred years. The Cape has, in truth, not been colonised for fifty years; and instead of being one of the oldest colonies now in the possession of the British crown, it is, in reality, one of the most juvenile. For its first century and a half it was a mere garrison settlement; and the instinctive colonising tendencies of the free burghers among the people were systematically checked and repressed by the monopolist government. The political philosophy involved in the struggles of those unprosperous times has found a most competent expounder in Mr. Watermeyer; the lessons he reads from it to the Government and the people of the present day are well worthy of their attention—if history is indeed to be respected as philosophy teaching by example. It is impossible for us here, in these notes, to enter upon the contents of the work, with the prospect of doing anything like justice to it. And it is quite superfluous to remark that the style in which the lectures are composed, though necessarily rapid and summarising, is clear, graceful, and graphic. Our only regret is that Mr. Watermeyer should have considered it necessary to cut short the history at the point at which it does terminate. The history of the last half century should be full of interest, excitement, and instruction. And Mr. Watermeyer's success, in what he has already accomplished, gives proof that he is the most competent man among us to undertake the continuation of the work

Our bi-weekly contemporary, the *Argus*, in the youthful vigour of its existence, has introduced a new feature into colonial newspaper literature, by the appointment of a special commissioner to collect historical information respecting one of the most interesting and remarkable of the native tribes of South Africa. A few years ago, the *Morning Chronicle* newspaper, in England, initiated the system, by the appointment of special commissioners to collect information respecting the manufactures, literature, and social condition of England; and such men as Henry Mayhew, Shirley Brooks, and Angus Reach were selected to undertake the duties. The *Times* followed afterwards, and Caird was engaged to report on British agriculture, and the agricultural state of Ireland in particular. The result of those labours was a vast flood of light thrown in upon departments of investigation previously never once systematically inquired into.

The result of the *Argus* commissioner's labours is the volume we have now before us—the *History of the Basutus of South Africa*. Prefixed to it is a preface, written by a far more practised and accomplished pen than the historian's, and in which we are introduced broadly and largely into the subject-matter of the work. It is highly eulogistic of the Basutu Chief Moshesh, and bitterly condemnatory of "the ignorance and the grievous blunders of military governors, and their subordinates." Moshesh himself is there held forth, and, we believe, with much justice and truth, as the most original, able, enlightened, and upright barbarian chief that South Africa has ever beheld. His humanity, his mildness, his love of peace and justice, his horror of war, are represented as conspicuous, upon every occasion; and, in a vein of biting—but we fear not wholly unmerited—sarcasm, it is added that "the possession of these, and many more good qualities, would almost lead us to believe that our faithful and long-suffering ally, as he calls himself, was not a Christian. He is, in fact, a heathen."

The history itself begins and continues, for the first twenty pages, with a rapid sketch of the origin of the Basutu tribe, their contests with the surrounding hordes of natives, and the leading events in the adventurous career of the colonial emigrants beyond the Orange River. We are told that, according to the traditions of the Basutus, they came, at some remote period, from the north-east, to the tract of country now occupied by themselves and the Free State. Their political constitution, we are informed, is like that of all the Bechuana tribes, oligarchical; the different sections of the tribe being severally governed by chiefs, who trace back their descent to one common ancestor. The paramount authority over all is not necessarily hereditary, and has seldom descended from father to son, for many generations. Moshesh's predecessor, in the supreme chieftaincy, was his cousin, Mothlumi, who died about 1815. At his death, none was possessed of sufficient influence to attain to paramount authority, until several years after, when the young

Moshesh distinguished himself by personal bravery, and by a wise and characteristically astute political system. One feature in his system is peculiarly noteworthy. Rich in cattle himself, he purchased wives for the poorer among his people, and gave his subjects partners, on condition "that the cattle received, as purchase-money for the female children, when they married, should revert to him." He thus secured the good will of his people, at least that large majority of them who felt ambitious of matrimonial bliss; and, at the same time, a perpetually increasing personal wealth to himself, "as certain and as lasting as the laws of the tribe." The first most marked event in Moshesh's history we have in 1818 and following years, in the inundating invasion of Basutuland by the refugee Zulus, who fled from the atrocities of the savage Chaka. Encountered by Moshesh, on the one side, and by the Tambookies, and the boers and troops, under the command of Major Dundas, on the other,—the miserable Zulus were cut to pieces. Their chief, Matoana, was driven back upon Moshesh, by whose permission he passed over to Natal, leaving his wife and children, and some of his people, with his conqueror. His fate, at last, was an unhappy one: he was murdered by Dingaan. His widow is still alive at Thaba Bossigo, a pensioner on the bounty of Moshesh. It was during the commotions of those troublous times that Moshesh attained the paramountcy. Most of the minor Basutu chiefs lost their lives; thousands of their subjects were perishing from starvation, and either emigrated into the colony in quest of food, or remained to become cannibals within the limits of their own country. The remaining chiefs thus readily subjected themselves to the sway of the prosperous Moshesh. We have next an account of the Korannas, the Bergenaars, and boer outlaws, such as Buys and Bloem; their desperado attacks on the Basutus; and their defeat by the combined agencies of "plague, pestilence, and famine, battle, murder, and sudden death." And then we have a more pleasing episode in the advent of the French missionaries, whose intelligent and pious labours have done so much for the civilization of South Africa. Then succeeds the account of Moshesh's conflicts with the Amakosa, the defeat of these Eastern tribes, and the retreat of many of them into Beaufort (West), within the colony, where they and their descendants are still well known as the Praamberg Kafirs. Next we are introduced to the emigrant boers,—a sketch of their most romantic and, too often, tragic history is given; and the whole of the rest of the volume, extending over 143 pages, is occupied with detailed chronicles of the complicated relations of the boers, the British Government, and Moshesh to each other, respectively, from 1836 down to the final abandonment of the Sovereignty, by Sir George Clerk. We have no room for it here, and it would be foreign to our purpose to enter upon the intricate questions involved in the leading events of those twenty years. The documents quoted, and the facts asserted in this work, are well worthy of the

attention of the student of recent South African politics. We must express our conviction, however, that the history before us is not to be implicitly relied on. Though containing very much that is of unquestionable veracity and authenticity, it is clearly a one-sided production. Nothing can be more manifest throughout than the *animus* of the author to write up Moshesh, and to write down the boers. That Moshesh merits being written up, we very readily admit; but that all the accusations urged against the boers, and against the administrators of the Sovereignty Government are justifiable and true, we may be permitted to doubt. This, however, is not the place or time to enter npon a discussion of that deeply important issue. In the meantime, we recommend the work as, in many respects, an interesting and valuable one.

We must not omit to refer here to Mr. Hall's most valuable map of South Africa, recently published. It has been a work involving great pains and research; and the accuracy now attained to is the result of that research. The map will be found invalnable to every colonist, and we have no doubt that its circulation will be nniversal over the whole country. It is specially interesting in another point of view, as being entirely the production of the Cape—engraved, printed, and published here. The mechanical difficulties encountered, we believe were most formidable. The ingennity and perseverance of Mr. Hall, and his engraver, Mr. Crew, overcame them all.

Mr. Hall is contributing most zealously to the geographical information of the colony. Besides an excellent table of Distances just published by him, we understand that he is now engaged on a new and large nndertaking, the compilation of a South African Geographical Cyclopædia or Gazetteer; in which the geographical details, historical traditions, and statistical accounts of every district will be collected.

The Public Library at the Cape we are at all times prepared to uphold as an admirably managed institution—on the whole. We trust, therefore, that when we do venture to suggest any improvements, we may not be considered captious or unreasonable. In one particular respect, we are of opinion that an immediate improvement is imperatively needed. It is this. At present there are thirty-three thousand volumes in the institution, and accessions of several hundreds are added annually. Among them, of course, are books on all conceivable subjects, recondite or popular. But among them we are keenly disappointed at failing to discover many of the most special favourites of the reading public. Of Dickens' works, there are but few indeed that have not perished prematurely, not by any means left to dull forgetfulness a prey, bnt perished in the using. Whether we want to renew our acquaintance with Mr. Pecksniff, or Mr. Bumble, or feel anxious to hear what Mrs. Jellaby thinks of the present starved condition of Kaffrarian Africa, we must go somewhere else to meet with those personages than at their most appropriate residence, the Public Library. If we want to know

what Col. Newcome can tell us about those Indian Sepoy rebels, the veteran is so hopelessly tattered and torn that we scarcely care to be discovered in his company. Major Pendennis, we can't get an introduction to at all; and the mazes of Vanity Fair it is useless to attempt to thread. The only work of Thackeray that is at all readable in the Library is *Esmond.* A deep interest has been excited in Currer Bell's admirable productions. But *Shirley* is not; *Jane Eyre* is in rags; and *Villette* must serve as the only and most inadequate representative of Miss Bronte's genius. Bulwer's latest and most classic works, Lever's dashing romances, and many more of similarly standard books, are not to be met with, or if met with at all, only in a perfectly dilapidated and unreadable state. We might also advert to the poetical classics, and complain that Tennyson is meagrely represented; Coleridge mourns over the loss of his *Christabel;* and of the modern poetry of Smith, Dobell, and Gerrald Massey, which one would like occasionally to dip into, albeit it is spasmodic, there is hardly a single representative, except that admirable travesty of *Firmilian.* We are not now censuring any one connected with the management of the Library. Most of the works we have mentioned, have been there, and have only been put *hors de combat* by constant use. But we trust that this notice will induce the committee to obtain supplies of the desiderated volumes, by the earliest opportunity. And we trust we are not too sanguine when we express our expectation that these works will be received in time to be embodied in the forthcoming catalogue.

Dr. Bleek has communicated the following extracts from private correspondence relative to the new Niger expedition, undertaken into the interior of Africa. They will be read with interest :—

The Rev. Samuel Crowther to Dr. Bleek, dated Lagos, May 15, 1857: —"My dear Sir,—I have received your letter of the 19th January, 1857. It almost missed me, as I am preparing for another expedition up the Niger, for which I shall embark in about a week hence..... The present expedition takes the Kowara branch, and the gentlemen will be instructed to go as far as to Sokoto, in a visit to the Sultan of that place. It is also proposed that trading settlements be made between the Delta and the Confluence of the Kowara, and Tshadda, in which localities we also intend to commence our missionary operations.

"It is a matter of very great importance at this time for the civilization and evangelization of the natives of the banks of those rivers.

"Dr. Livingston's enterprise and discoveries in Central Africa have unfolded to the world what has been hid for ages in mists of conjecture. I am glad to say our own mission in this country is in a prosperous state, in all respects. Christianity is begun to be felt as the source of true happiness of man in time and eternity.....The old and aged slave-dealers have confessed to me that, since the time of the slave-trade, so much wealth was never poured into the country as has been since the introduction of lawful commerce, which commenced only since 1852, after the reduction of Lagos."

A letter from London, 15th April, 1857, says, with regard to the same expedition :—"Dr. Baikie last week sailed or steamed for Sierra

Leone, whence he is charged with the mission of taking on some uncivilized negroes from states on the Niger, whom he is to locate in the countries of their birth, with a view of commencing civilized settlements, which may serve as a nucleus for further progress, at a future period.

"I think the plan is a good one, and I hope it may succeed."

Of literary intelligence from England, we have but little, though that little is not without some special interest and significance. A batch of elevations to the peerage have been announced, and foremost among these appears the name of the historian and essayist, Macaulay, who now enters the House of Lords as Baron Macaulay. This act of Palmerston's has been universally eulogised as the most graceful of his administration. It had been the custom hitherto to reserve the peerage as the appropriate guerdon of distinguished bravery, distinguished law, distinguished partizanship, or distinguished opulence. Macaulay's reputation as a constitutional jurist and political partizan stood high enough, but not sufficiently prominent to secure his present elevation. The avenue by which he has attained to his rank has been unquestionably literature. And he may be considered the first to whom literature has brought that reward. As an essayist and historian, he enters the House of Lords; and as an essayist, even more than an historian or a lord, his name will go down to posterity.

Dr. Livingston was still in Scotland, and on the 16th of September, was to be invested at Glasgow with the Freedom of the City, and presented with a money testimonial of £2,000. His journals of travel and adventure had not yet been published. The cause of the delay, it is announced, has been the difficulty of completing the accompanying maps, owing to the accumulation of matter provided by the author. The work, however, was advertised for positive publication in November.

The efforts of Dickens, Thackeray, and the other distinguished litterateurs of London, to get up a memorial fund, in honour of the lamented Douglas Jerrold, and for the relief of Mrs. Jerrold and her only unmarried daughter, have been attended with marked success. Within the short period of three months, a sum of £2,000 was collected, and invested.

Among the deaths recently announced, in the English papers that have reached the Cape, appears the name of the Right Hon'ble John Wilson Croker, well known to literature and the *Quarterly Review*. Mr. Croker has been a very veteran among essayists, and down to the very last, his writings were marked by the same trenchant vigour, severity, and gall, by which he attracted notice at the outset of his career. His last passage of arms with Lord John Russell, the editor of the Memoirs of Moore, will long be remembered, as comparable only with the savage cruelty of Macaulay's criticism on Croker himself, as the editor of Boswell's Johnson. He has now gone, and the *Quarterly Review* will, by his decease, have lost much that was ferocious, cynical, and cross-grained, but it has lost, at the same time, much of the vigorous eloquence and satiric power, by which Croker's best essays were invariably distinguished.

Another of the distinguished dead is the Rev. Dean Conybeare, the author of *Perversion*, and the writer of the slashing ecclesiastical reviews in some recent numbers of the *Edinburgh*.

COMMERCIAL REVIEW.

The principal feature in the transactions of the past month has been the arrival of vessels with coals, of which not less than 6050 tons have been entered at the Custom House, although happily for the market, a considerable portion has been carried on to the eastward, where prices are expected to rule high. There has been great fluctuation in this article, the latest quotation we have heard being @ 43s. 6d. ℔ ton, delivered alongside a steamer, for best Welsh coal. There is a large stock here now, and reductions of any moment are not likely to be made until the return of the steamers which have gone to India and China with troops. It is supposed that prior to their return they will be employed in the conveyance of troops from Suez to India.

From Adelaide there has been an importation of 3250 bags flour, besides wheat and biscuit. From America about 2000 barrels of American flour have been received; whilst from Calcutta 500 bags wheat have come in, in addition to 2500 bags rice. Four cargoes of timber from the Baltic have met with a ready sale, either here or at Algoa Bay. Of manufactures, &c., from England, the arrivals have been seven; the trade in this is animated. We have imported 5600 bags coffee from Rio, and as we write, another vessel is reported. The sales of this article have been dull, and, in some instances, clearly unremunerative to the importer. From the coast there have been three arrivals of guano, which are probably destined for shipment to Mauritius. The price on the Island is very high for Peruvian, and Ichaboe is next in demand. Our importation of tea from Amoy is upwards of 18,000 packages, and promises to be of ready sale at remunerative prices. 30s. to 32s. ℔ box of 10-catties is still the rate demanded for the best descriptions of Caper teas. A rumour, which appears to have been unfounded, has got abroad, that the Indian Government had prohibited, or was about to prohibit, the exportation of rice from the three presidencies in consequence of the destruction of the crops by the natives; but, although this is not authenticated, there is little doubt but that there has been a very great advance in the price of this grain in India, and that our importations from thence must be interfered with. One or two ships have arrived from Bombay for the purpose of taking horses to that Presidency on account of the East India Company, and others have been chartered by the local Government, for the same purpose. It is very gratifying to be able to state that the first cost of these horses has been low, and that the selection for artillery purposes is considered good. The expense of their conveyance to their destination, inclusive of forage, water, and fittings, will necessarily be considerable, and they will consequently stand in at high rates in India; but we hope that it will be seen that the service can be supplied, in ordinary, and even extraordinary times, better and cheaper from this colony than from any other part of the world. The certainty of a regular demand for good horses

for the East India Company would do more to encourage breeders to improve their stock still further than any other premium; but the selection should only be entrusted to those officers of the Indian army, or others, who are acquainted with *Cape* horses. We have seen woeful cases of mismanagement for want of this knowledge.

Ships have been taken up to convey a portion of a distressed ship's cargo of railway iron to Bombay @ £3 ℔ ton. Copper ore from Hondeklip Bay is being shipped @ £2 17s. 6d. ℔ ton. Freights in Table Bay, for London, are ruling lower than they have done for some time past, owing to the number of loading ships. Wool is coming in fast, and is being shipped at about ¾d. ℔ lb. Two or three vessels have called in from the coast of South America, seeking freight, but without success; and have consequently proceeded to Mauritius for a cargo.

Exchange rules the same as during last month. Money has been, and continues much in demand; the facilities which were anticipated in obtaining discounts have not been realised, and we begin to fear that this state of things will be permanent. Large sums of money are taken out of legitimate circulation by the heavy payments of duties made by the merchants, and placed in the treasury, where they lie useless and unfruitful, instead of being diffused in the ordinary channels of trade. We hope that public works will speedily relieve the chest of a large portion of this wealth, or that the Government will establish its own bank, and afford facilities to the public, instead of injuring the commerce of the colony.

[Since the above was written, intelligence has arrived of the re-establishment of mail steam communication with England, which must prove gratifying to the whole colony.]

MONTHLY REPORT OF THE SOUTH AFRICAN MUSEUM.

The past month has witnessed a considerable improvement in the very quarter of the Museum where improvement was most needed, namely, in our collection of fossil-organic remains. Not only has the splendid collection of examples, from England alluded to in my last report, been added to our stores, but the geologist of the Austrian exploring ship *Novara* has left, in exchange for specimens to be given to him from the Museum, a select collection of 100 species from Germany.

The English collection, for which we are mainly indebted to His Excellency Sir George Grey, has been sent from the Geological Museum, in Jermyn-street. It formed part of the vast collection made by the officers of the Geological Survey of Great Britain, and is arranged and catalogued in the most careful manner,—each specimen being furnished with a label, detailing the formation to which it belongs, the locality where found, and its generic and specific name. The German fossils

have also been as carefully selected, and the printed labels which are attached to them will be used in mounting them.

The worst represented portion of the Museum now is the collection of South African fossils; but this I hope, ere long, to see improved. I earnestly beg our friends in those parts of the colony where these interesting records of by-gone ages are found to bestir themselves on our behalf. I now owe Dr. Hochstetter, the geologist of the *Novara*, from eighty to ninety specimens; and unless our friends come forward and assist us, our credit among Continental museums is gone, and we may look in vain for any further extension of our collection, by exchange.

I know many of my readers can and will sympathise with me, and understand what were my feelings when my learned friend exclaimed, at seeing the miserable show of specimens, barely occupying *one side* of one of our horizontal cases—"Are these all you have of the curious and most interesting fossils of Southern Africa! fossils of which we, in Europe, think so much! Where are your Dicynodons, Homolocephali?" &c.

Two heads of the former, one perfect specimen of the latter, and a few fossil shells, collected by Mr. Wyley, or contributed by Mr. Meeser, were all that I could show him; and now I beg our friends not to let this department remain a reproach to our flourishing institution. As far as lies in my power, I shall do my best to prevent it; and, by the end of next month, I hope to send a collection of shells, comprising some 100 or 150 species, to our sister institution in Graham's Town, for which I shall request, in exchange, a set of their duplicate fossils.

While on this subject, I may mention that I have, with the assistance of Mr. Fairbridge, succeeded in separating the two portions of the Dicynodon fragment presented by M. Pellissier. It consists of the head and carapace,—this latter being in very fair preservation.

In my former reports, I have failed to do justice to the clever model of a frame and lattice bridge, exhibited by Mr. Elton, of the Civil Engineer's department. This model attracted considerable attention from the officers both of the American frigate *Minnesota* and of the *Novara*. The former gentlemen expressed themselves much pleased with the clever adaptation and extension of a principle that has obtained great favour in the United States, and which, according to their statement, has been found to answer extremely well.

The accompanying description, taken from the constructor's own statement, will assist visitors wishing to know more about this style of structure. An estimate of the quantity of timber required, and the cost thereof, has been fixed to the end of the model.

The model is to a scale of half-inch to one foot; the span 150 feet. It has been tested with a weight of 660 lbs., distributed over three feet of the middle, without producing any derangements of its parts; and, from this result, the designer believes 1,000 lbs., distributed equally over its length, would not be more than it is capable of carrying.

He has endeavoured to make it as simple and as strong as is consistent with economy, and of such materials as may, in many instances, be fonnd where bridges are required. The lattices and braces may be renewed, when decay shall take place, without inconvenience to traffic or injury to the structure.

The lattices may be made of round timber, and, in the whole fabric, only five sizes of timber are required. The iron bolts and spikes are respectively of one uniform length and sizc, and the whole is so simple that the commonest labour is all that is required for its construction, under the direction of one or two good carpenters.

Its cost will depend more upon the span of the several archcs than the space over which it is to be carried.

For instance, a river of 600 fcet wide may be bridged, when the span does not exceed 50 feet, for £2,900.

If the span is increased to 75 feet, the same 600 feet would cost £3,500.

Increase it again to 150 feet span, and it would cost £5,000.

The time nccessary to construct a bridge of this kind would not exceed three months.

Economy simplicity, and the means of effecting repairs, when required, with the least possible tronble and expense, is the object at which Mr. Elton has aimed; and, from all I hear, I think he has succeeded.

Our collection of shells has received an interesting accession in a fine specimen of the *Teredo Navalis*, together with a portion of the side of the vessel into which the creature had bored; exhibiting the destructive power of this living marine auger. If this fearful agent of destruction should become common in these waters, the damage they will cause to our shipping, wharfs, &c., may be of the most serious consequences to us.

We have also, by the kindness of Messrs. Deanc and Johnson, received per *Deane* another collection of 200 species from M. Robillard, of Mauritius, in exchange; many of these specimens come from Australia, and will prove great additions to our cabinets.

Mr. Peter Borcherds has again contributed several new birds' eggs, and Dr. Graaf, of Somerset (West), has found his way to us once more, in the same department.

Eight or nine drawers of the Lepidoptera have been relaxed, re-set, and arranged; they will be namcd when the whole is completed.

His Excellency the Governor has added an extensive series of geological publications, brought for an exchange by Dr. Hochstetter to our library. The splendid lithographs of shells, plants, &c., accompanying these volumes are well worthy the inspection of the most casual visitor.

It may be as well to notice here, that any respectable person may have access to thc scientific works in the Museum, on application to the attendant; and certain works *bonâ fide* the propcrty of the Musenm will be lent to any gentleman or lady, for the purpose of rcference, under proper restrictions, on application to the Curator.

Dr. Way, recently arrived from Burghersdorp, has prcsented a fine Koodoo skin, some Dicynodon remains,—one a perfect leg-bone from Aasvogel Kop, Orange Free State; a distaff of native spun cotton-yarn, from the northward of Delagoa Bay; a Bechuana earthen vessel, exhibiting evident traces of some kind of glaze having been nsed in the manufacture; and a transparent stone pipe.

E. L. Layard, Curator.

ANNUAL REPORT OF THE COMMITTEE OF THE CAPE OF GOOD HOPE AGRICULTURAL SOCIETY.

In submitting their annual report to the members of the Society, the Committee have some satisfaction in being able to draw their attention to its improved prospects. Though all has not been accomplished that could have been wished, it must be recollected that the Society had to be, as it were, resuscitated, and the want of funds arising, the Committee regret to say, chiefly from the difficulty of collecting the subscriptions in arrear, has been a heavy drag upon their movements.

The Annual Show of 1856 produced no new features, and may be passed over with this cursory notice.

That of 1857 was distinguished, from all that had preceded it, by being held in the Paddock, at the top of the Government Gardens, by the kind permission of His Excellency the Governor. The arrangement was found so convenient both to the exhibitor and the spectator, that your Committee recommend it should be adopted for the future as long as the enclosure may be available, with the Governor's sanction.

Unfortunately, in consequence of bad weather on the day for which the Show was first advertised, it had to be postponed for a week, and was thereby deprived of the presence of many animals, which had been brought from the country for exhibition, and could not be detained so long.

The collection of live stock was therefore limited, and the chief interest of the exhibition was centred in the machinery.

[The prize list is omitted from want of room.]

The six-horse portable steam engine, being the first seen in the Colony, was considered worthy of a prize, if only on that account; but as it is a machine of great value in agricultural operations, and can be applied to a variety of useful purposes, it is the more deserving of commendation, and its exhibition of encouragement.

Mr. Fyffe's tobacco-cutting machine, made by him in Cape Town, was a most ingenious and highly-finished piece of workmanship, and is a sufficient warranty for the ability of Mr. Fyffe's establishment to undertake the manufacture and repair of any agricultural machinery used at the Cape. On these grounds the Committee took upon themselves the responsibility of assigning to it a prize of £5, though, like the steam engine, no provision for the same had been made in the prize list.

The garden drill, and the Indian corn sheller, exhibited by Mr. R. M. Ross, of Strand-street, were highly commended, and are likely to come into general use.

The implements used by vine-dressers in the south of France, kindly exhibited by Dr. Biccard, attracted much attention.

During the past year, the prizes for wool and for wheat, and for other cereals, were not adjudged, for want of competition.

The prizes for wine did not produce any very satisfactory results,—most of the samples, with the exception of one or two from Constantia,

being of low quality, and not fairly representing the wines which this colony is capable of producing.

Hoping to devise some method of enlarging the competition in this department, and being desirous of promoting the manufacture of wine more worthy of the climate, soil, and capabilities of the Colony, your Committee invited a deputation of the wine-farmers of the Paarl, Drakenstein, and Stellenbosch, to a conference at any place most convenient to themselves; but this invitation, your Committee regret to place on record, though strongly urged, and twice repeated to the Paarl, did not meet with that acceptance or attention which might have been expected. The Committee hope that, at a more convenient season, their former offer may be met in a corresponding spirit.

But, though failing in some respects to carry out all the objects of the Society, your Committee can look back with satisfaction to what has been effected in a department of agricultural science, hitherto much neglected at the Cape. During the last twelve months it has been the chief aim of the Society to encourage the introduction and use of agricultural machinery and implements likely to be serviceable in the Colony; and, accordingly, it has given prizes for the public exhibition of reaping and thrashing machines, and the drill. All these worked successfully, though the drill had not quite fair play, owing to the lateness of the season when it was shown, and the uncleared ground on which it worked. The details of the performances of these several machines have been already before the public, and need not here be repeated.

These trials of imported machinery were necessarily of limited scope and duration; but being watched by many practical agriculturists, and leading, in many instances, to the adoption of the implements then produced, it is to be hoped that the start thus given may have enlarged results hereafter.

The ploughing match only brought out Howard's English ploughs, and one of American construction,—the Scotch, Swedish, and Cape ploughs being unrepresented.

The judges were Messrs. S. Mostert, P. L. van der Byl, and S. Robertson; and they assigned the prize of £5 to the best ploughman, to John Cooper, in the service of Mr. R. Hare; and the second prize of £3 to — Robertson, in the service of Mr. John Reid.

The prize of £10, for "the best plough for general purposes," was assigned to a double-furrow plough, made by Howard, of Bedford, the property of Mr. R. Hare; and the prize of £5 for the best plough for "breaking up land," to Howard's colonial plough, also the property of Mr. R. Hare.

Your Committee desire to record their sense of the obligations which the agriculturists of the Colony are under to Mr. S. Mostert, of Mowbray, for the use of his ground when the implements above enumerated were

submitted for public trial; and to Captain Holmes, American Consul, for the gratuitous use of his excellent reaping machine; also to Mr. Robert Hare, for his kind assistance in bringiug his thrashing machine and drill, at considerable risk, from the country, and for his personal aid in superintending their performances, and explaining their properties.

The introduction of the Angora goat to South Africa, during the past year, by the Messrs. Mosenthal, is an event which your Committee cannot pass over in sileuce, feeling how much the Colony is indebted to those gentlemen, not only in this instance, but by their previous spirited efforts to increase the agricultural resources of the Colony.

The Society has acquired many new members, and when the grant from the public revenue, authorised by the Colonial Parliament, has been realized, more may be undertaken than your Committee have yet ventured to attempt.

Your Committee cannot close their report without adverting to the improved and still improving prospects of the agricultural interests of this Colony. The exports of wool and wine have greatly increased within the last few years, viz., of wool from 5,912,927 lbs., in 1850, to 14,920,988 lbs., in 1856. Of wine from 374,903 gallons, in 1850, to 723,920 gallons, in 1856, whilst the prices realised, in foreign markets, for these articles of colonial produce have been recently beyond all precedent, and promise to continue firm.

The requisition for 1,000 horses for the Indiau Government cannot fail to give a new impetus to that branch of our colonial agriculture, and as a demand of this kind may be expected annually from the same quarter (should the present supply give satisfaction), it is hoped that the breeders will pay increased attention to the quality of their brood stock.

The proposed railway to the fertile districts of Stellenbosch, the Paarl, Malmesbury, &c., &c., must undoubtedly tend to promote agricultural enterprise, and to raise the value of property wherever its influence can be felt; and the liberal system of European immigration which the Colonial Parliament has sanctioned, will go far to meet the want of skilful and steady labour which has been so grievously felt for many years past by the agriculturists of South Africa, and without which the increase of coloured labour is not likely to be of permanent benefit to the Colony. P. B. Borcherds, Chairman.

NOTES AND QUERIES.

REPLIES.

It is a mistake to snppose that a roof of a construction similar to that of the Dutch Church in Adderley-street is one of very extraordinary span. It is a simple queen-post roof, and a model of one of the trusses of it may be seen in the Museum. The mistake your correspondent has fallen into is when he compares it with that of Westminster Hall; he forgets that the latter has no tie beam, a construction which throws merely a vertical pressure on the surrounding walls, but is an open, ornamented Gothic roof, withont any connecting tie, the thrust of which is only counteracted by the extraordinary thickness of the walls of the building, or in ordinary cases by the use of buttresses. Of roofs of the same construction, or rather on the same principle, as that of the Dutch

Church, I may mention that at White Conduit House, Islington, which, besides supporting a whole floor within it, is 81 feet; a riding house, which, before 1812, existed in Moscow, of the extraordinary span of 235 feet, all of timber; the theatre D'Argentine at Rome, 80½ feet; the roof of Drury Lane theatre, supporting, besides, the heavy painting and scenery lofts, 80 feet; that of the Birmingham theatre, 85 feet. The use of cast and wrought iron, either alone or in combination with timber, renders the construction of roofs, of a far wider span than these, a matter of little difficulty; that over the railway station of the Liverpool and Manchester line, in Liverpool, having, I believe, a span of 300 feet. In any case, however, the construction of the Dutch Church deserves a great deal of credit. The architect has left behind him a sound, well-constructed roof, at a time when the mechanical principles of carpentry were little understood. In conclusion, I would beg to lay before your readers one or two definitions of roofs.

1. In a common timber roof, finished with a ceiling, certain framed trusses, of a triangular shape, rest on the walls. These have only then to support a vertical pressure, which, in a roof covered with as light a substance as slate, is but inconsiderable.

2. In an open ornamented Gothic timber roof, on the contrary, there is no tie-beam between the walls, and there is consequently a tendency in the timbers, and general weight of the roof, to thrust out the walls from the perpendicular, and they must be built strong enough to resist this, or have side auxiliaries, in the shape of buttresses, and the higher the pitch the less outward pressure on the side walls. Hence the high and steep slope of roofs of Gothic churches.

Many of the modern iron roofs of railway stations present a complicated structure of timber, wrought and cast iron. Some, again, are constructed of immense curved ribs of timber, on the arch principle, such as the Northern Railway Station, City Road. The Crystal Palace roof was formed by a series of cast-iron girders, supporting narrow ridges of glased skylights, discharging into hollowed gutter beams,—the span only limited by the strength of the girder used,—a construction only adapted for buildings of a very temporary nature, and more novel than useful. For a moderate span, and a climate such as ours, the flat roofs of Cape Town are well adapted; but they are sadly defficient in providing a proper ventilation for the timber used in their construction. Hence the prevalence of dry rot, and consequent decay of our roofs.

Imhoff, 26th October. H. Hall, R.E.D.

Your correspondent who takes an interest in poor "auld Ireland," and its Milesian traditions, may be gratified to hear that, to this day, there is a tradition in the kingdom of Kerry, that Heremon, the son of Milesius, was buried on the Skellig Rock, a precipitous islet, about ten or twelve miles from the coast, near Bantry. To any one curious on this subject, we would recommend the study of Old Keating, who gives

a most circumstantial history of the Emerald Isle for several centuries previous to the Noachian deluge, as well as the dark ages immediately succeeding it;—in fact, his ante-diluvian history is far more clear and circumstantial than any post-diluvian he has favoured us with, which should be a guide to any future Knickerbocker of the Cape Colony.

H.

QUERIES.

A FEW days ago, a gentleman, engaged on an historical table, asked me if I could tell him where Pappenheim, the celebrated Catholic general, and rival of Tillys, in the thirty-years' war, was born. His death, I know, took place at Leipzig, in 1632, but the date of his birth I could not recollect. I therefore consulted, but in vain, the following authorities:—Schiller, Mentzel, Enc. Brit., 7th ed., Penny Cyclop., Eng. Cyclopœdia, Maunder's Treasury of History, Chalmers' Biog. Dict., Bayle's Dict., and many other similar works, but in vain. Can any of your readers give a sketch of "Pappenheim," who, for the sake of Max Piccolomini, the colonel of his old regiment, the Pappenheimers, and his devoted death, ought to be dear to all readers of Schiller? Mentzel only remarks that, when he came into the world, he was already covered with scars; and, when he fell at Leipzig, over the body of Gustavus Adolphus, fighting like one of Homer's old Trojans, over that of Patroclus, his corpse was found to present the mark of upwards of one hundred wounds.

"Still raged the conflict round the hero dead,
And heaps on heaps, by mutual wounds, they bled." X.

CAN any of your correspondents inform me of the origin of the Indian phrase "proving false to their salt," which now occurs so often in descriptions of the Sepoy mutinies? A. C.

ASTRONOMICAL PHENOMENA FOR NOVEMBER, 1857.

Nov. 2.—7h. 8m. a.m., Jupiter and Moon in conjunction, Jup. S. 5° 23′
„ 3.—8h. 47m. a.m., Uranus and Moon „ „ Ura. S. 4 55
„ 3.—9h. 47m. a.m., Jupiter in opposition
„ 7.—8h. 13m. a.m., Saturn and Moon in conjunction Sat. S. 4 29
„ 12.—0h. 32m. a.m., Mars „ „ „ Mars N. 1 48
„ 14.—0h. 58m. p.m., Venus „ „ „ Venus N. 4 43
„ 16.—4h. 9m. p.m., Mercury „ „ Mercury N. 4 21
„ 19.—3h. 30m. p.m., Uranus in opposition
„ 23.—γ Capricorni (fourth magnitude) occulted by the Moon
Immersion 7h. 1m. 4s. } Cape mean time.
Emersion 8h. 11m. 8s. }
„ 24.—σ Aquarii (fifth magnitude)
Immersion 8h. 37m. 1s. } Cape mean time.
Emersion 9h. 51m. 1s. }
„ 29.—1h. 10m. p.m., Jupiter and Moon in conjunction Jup. S. 5 6

Meteorological Register for September, 1857.

Deduced from five Observations daily. Sundays excepted.

Hours of observation, 1h. 34m., 5h. 34m., 9h. 34m., 17h. 34m., 21h. 34m., Cape mean time.—Height above the sea level, 37 feet.

Day.	Barometer corrected at 32° Fahrt.	Thermometer		Humidity of Air. Saturation = 100	Self-registering Thermom		WIND.		Rain.	Cloudy Sky in tenths.
		Dry.	Wet		Max.	Min.	Force.	Direction.		
	1nch.	°	°		°	°			Inch.	
1	30·117	58·28	54·70	80·6	65·2	50·5	0·5	W½S		6·8
2	30·142	56·12	54·28	88·8	59·9	49·2	1·0	NW½W		8·6
3	30·061	58·06	54·42	79·8	63·5	47·9	1·1	SW½S		4·3
4	29·986	59·30	55·84	81·0	67·2	52·7	2·0	NW		7·7
5	30·067	54·42	51·84	84·2	59·8	48·5	2·3	WbW	0·184	5·8
6					61·0	43·1				
7	30·074	59·72	54·48	74·0	69·7	45·5	0·3	W½N	0·008	3·2
8	30·136	56·90	53·74	82·6	69·3	45·0	0·5	WbN	0·012	2·0
9	30·036	60·56	57·06	81·6	76·0	53·9	2·3	SW½W	0·035*	7·2
10	30.123	57·66	54·92	84·2	62·0	52·0	2·0	NW	0·085	8·8
11	30·100	58·60	54·02	74·2	65·0	51·7	3·4	SbW		4·4
12	30·117	34·94	52·06	83·4	62·2	47·8	0·6	S½E	0·430	1·4
13					60·0	41·5				
14	30·037	55·26	51·36	77·4	63·0	42·6	0·3	NW½W		4·4
15	30·185	55·26	52·00	80·6	63·0	47·0	2·6	SW½S	0·230	6·8
16	30·463	55·16	52·02	81·4	60·5	48·0	4·5	SbE		0·4
17	30·419	60·44	54·12	66·8	65·5	47·0	1·7	S		0·0
18	30·309	62·32	56·70	71·6	70·4	52·9	2·7	S		0·2
19	30·187	66·66	58·90	64·4	70·3	54·7	2·9	S½E		3·2
20					79·1	53·0				
21	29·945	72·60	59·70	46·6	84·7	56·9	0·0	WbN		6·5
22	29·819	66·88	56·54	53·8	77·7	58·9	2·6	NW½W		7·4
23	29·907	59·52	57·34	87·4	62·7	55·5	1·1	NNW½W	0·345	10.0
24	30·053	58·24	55·78	85·8	65·5	52·5	3·4	SW S	1·190	8·0
25	30·118	55·66	51·26	74·2	65·0	48·5	4·1	S	0·025	2·7
26	30·056	60·56	55·50	72·8	62·8	52·9	6·7	S½W		4·2
27					66·8	56·6				
28	29·984	61·82	57·72	79·0	72·5	54·1	2·6	SW½W	0·233	9·4
29	30·026	58·62	56·22	86·2	62·2	51·9	0·6	NWbW		8·4
30	30·043	58·84	56·28	86·0	63·3	52·2	0·7	NWbW	0·002†	5·0
Mean	30·097	59·32	54·95	77·25	66·53	50·48	2·02	WSW	1·779	5·26

* Heavy dew. † Fog-drip.

MEAN RESULTS FOR THE SEVERAL HOURS OF OBSERVATION.

	A. M. h. m. 5·34	A. M. h. m. 9·34	P. M. h. m. 1·34	P. M. h. m. 5·34	P. M. h. m. 9·34	highest	lowest
Barometer, cor. to 32°, inches	30·091	30·120	30·075	30·081	30·116	30·530	29·801
Thermometer, dry bulb, deg.	54·27	61·45	64·65	59·86	56·39	83·80	44·70
„ wet bulb, deg.	51.53	56·57	58·07	55·39	53·20	67·50	44·20
Humidity of the air, per cent.	84·00	75·27	68·81	76·15	82 00	96·00	30·00

(Signed) PIERCE MORTON,
Assistant, Royal Observatory, Magnetical and Meteorological Department.

CAPE MONTHLY MAGAZINE.

NEW ZEALAND PROVERBS.*

THE book bearing the portentous title, copied below, is not, as the uninitiated reader might suppose, a treatise on the Cabala. It is the production of our respected Governor, Sir George Grey, and, rendered into more intelligible though less euphonious English, means, simply, "Proverbial and Popular Sayings of the Ancestors of the New Zealand Race."

An eminent statesman, still living, has defined a proverb as "the wit of one man; the wisdom of many." And Don Quixote affirms that "there is no proverb which is not true, because they are all sentences drawn from experience itself, the mother of all the sciences." In this sense every proverb, popular saying, or vulgar adage is not only in itself worthy of note, but valuable as recording the judgment of some great mind, or the experience of a whole race. Collections of national proverbs are eminently interesting, for a single saying will give us a more correct insight into the philosophy, tastes, or morals of a people than a page of ethics or history. The "proverbial philosophy" of the native races of South Africa has been wholly neglected. The Hottentot nation has died out without leaving any record, for the benefit of posterity, whether it agreed with the English adage that "manners make the man," or with the Greek maxim that "the purse makes the man." The Kafirs, Basutus, and other native races who surround us, and whose motions and principles are a source of natural anxiety to us, are surely worth studying through their sayings. How much should we respect the worthy people who taught their children that "honesty was the best policy?" and how cautious we would be to keep from amongst us the lazy race whose national predilections are best illustrated by some such proverb as "never do that to-day which you can do to-morrow?" We trust that this hint will stir up Messrs. Arbousset and Daumas,

* *Ko Nya Whakapepeha me Nya Whakaahuareka A Nya Tipuna o Aotea Roa, &c.* By Sir GEORGE GREY, K.C.B. Cape Town: Saul Solomon & Co.; London, Trübner & Co. 1857.

Mr. Moffat, or some of the other gentlemen intimately acquainted with the manners and language of the tribes of South Africa to follow the good example set them by Sir George Grey, and preserve to us, before it be too late, the wise saws of our native Solomons.

The Maoris (the native name of the New Zealanders) are reputed to be the most intelligent of barbarous races, and certainly the facility with which they have fallen into the habits of their European visitors, and the wonderful comparative progress they have made in civilization (it was but yesterday that they were cannibals to a man) do not belie that reputation. Agriculture and the industrial arts now occupy the attention of the natives of New Zealand. Surrounded by the ocean, and accustomed from infancy to the perils of navigation, vigorous of frame and active in mind, the New Zealander seems destined by nature to amalgamate with the industrious maritime people who have transferred themselves to the isles which they proudly prophesy will be "the Britain of the South," in that sad day when Macaulay's famous picture shall be realized—when a descendant of the united races "shall sit on a broken arch of London Bridge, and contemplate the ruins of St. Paul's."

As might be expected, the "proverbial philosophy" of the Maori is indicative rather of the study of things as they are daily seen than of abstract ideas,—are more practical than didactic. A barbarous people, living in the open air, are naturally observant of the motions of the animal life around them. In the collection of proverbs before us, we accordingly meet with the following apposite illustrations:—

Ano, na te kahu i haro.
It is skimmed over by the wings of the hawk: (applied to level plains, bare of timber.)
E haki te patiki ki tona puehutanga.
The flounder flies back to hide itself in the water it has muddied.
He peo koe, he pitoto koe, he pinono koe, he pirinoa, koe he kotare koe.
Ah, so your'e watching us at our meal, to get a bit, are you, like a king-fisher sitting on a high bough, watching for its prey?
He namu pea ahau.
Perhaps, although I'm little, you'll find me troublesome as a sand-fly.
Me he korinorino kokopu.
Beautiful as the mottled trout.

Some of these illustrations are identical with English sayings, as—

E hara i te uaua tangata, otira he uaua kiore.
He's as weak as a rat.

Occasionally we see an English simile reproduced. We are fond of likening our gallant sailors to the choicest part of

the tree which forms the staple of our navy. The New Zealander does the same:—

Ka mahi te tawa uho ki te riri.

Bravo, the sturdy warrior; tough as heart of the tawa tree: (heart of oak.)

And at times we are irresistibly reminded of one of our old ballads:—

He kotahi tangata,
I a Whiti, i a Kahupeka, i a Te Rarokahaunga,
Ka tere te waka.

Never mind, 'tis but a single warrior you have slain; we have still Whiti left, and Kahupeka, and Rarokahaunga. Never fear, the canoe will float yet; our tribe is not destroyed.

What is this but King Henry's observation on hearing of the death of Erle Percy:—

"Now God be with him, said our King,
Sith it will noe better bee;
I trust I have within my realme
Five hundred as good as hee?"

The predatory life, aggressive wars, and cannibal propensities of the Maori population are exemplified in their proverbs:—

Kia mate a Ururoa,
Kei mate Tarakihi.

Fight away, my men; die fighting and struggling like the fierce shark; do not be slain like a weakly little girl.

Kia mau ki Tamaki.

Hold fast Tamaki; do not let them drive you out of Tamaki: (a district near Hawkes' Bay.)

Kainga te kai, hei ao ake te rangi.
Ko Mangawhero.

Eat your food at once; do not keep it until to-morrow; you may be all killed before to-morrow, as they were at Mangawhero.

Ki te pokopoko o Rotu.

We have nothing here in Rotorua to give you to eat, unless we cut off our ears for you.

This last beats Arab hospitality.

It has been remarked that in the proverbs of all countries the fair sex have sustained a singular injustice. Thus the English say "Commend a married life, but keep thyself a bachelor" (St. Paul's sentiment, by-the-by); the Scotch, "Daughters and dead fish are nae keeping ware;" the Italians, "Who is weary of a quiet life, get himself a wife;" the Spanish, "Three daughters and a mother are four devils for the father;" and the Hebrew weekly gives thanks to Heaven that he is not a woman! It pains us to find that the Maori literature is rich in this libellous wisdom. They utter, and Sir George Grey (a married man too) is not ashamed to

collect and publish the following blasphemies against the divine sex:—

He tane parae roa.
A son is worth having,—not a daughter.
Ko Tiki raua ko Toa.
Women and war are the two dangers of men.
He wahine, he oneone i ngaro ai te tangata.
Women and land are the causes which destroy men.
Whangaia ta taua tuahine, he tangi i a taua.
Let us take care of our little sister,—she will ever mourn us if we die: (meaning that a wife's regret lasts not like a sister's, for she soon loves another and marries again.)
He wahine whakarongo hikihiki.
A female, perhaps, hears the enemies who have slain her family, sing, as they offer the bodies to the gods; or, 'Tis little use having a daughter,—she will, perhaps, raise up heirs for your foes.
He wahine ahi tere.
A woman wanders from tribe to tribe; or, 'Tis little use to have a daughter; perhaps she may marry into a hostile tribe, and leave her own family.
He wahine te mea i pura ai te kanohi o Tahuaroa.
It was from interfering in a quarrel about another man's wife, that Tahuaroa had his eye put out.

We beg to call the attention of Sir George Grey to the fate of Tahuaroa. "Mind your eye" is an English saying, and Sir George had better look out and protect his orbs from the digitals of the ladies at the next levee at Government House. We did at one time imagine we had found a solitary tribute to the value of womankind, as Mr. Oldbuck calls them:—

He pai tangata ekore e reia
He kino wahine ka reia.
A handsome man is not always fallen in love with by a woman; but even an ugly woman is sure to find some lover (*reia*, eagerly sought).

Alack! the tribute rendered is to woman's capability for work—behold the use of wives in New Zealand:—

Ka mate whare tahi
Ka ora whare rua.
A man, with only one wife to labour for him, may die of hunger; whilst a man with many wives, grows fat.

We meet many old friends, occasionally some from the classics, clothed in Maori garb.

Æsop is paraphrased; here is a pretty version of the carter and Hercules, the folly of simple reliance on higher powers without corresponding exertion on our own part:—

Ka haere Rangipo
Ka haere Raeroa
Rangipo and Raeroa started together on a journey. Rangipo carried his god alone with him; Raeroa carried his god on his back, and food in his hands; Rangipo died,—Raeroa lived.

At some distant period a tatooed Heraclitus and Democrates adorned New Zealand—

Ka riri Taiha
Ka kata Maero

Taiha's cross,—Maero laughs: (two chiefs of Taupo; Taiha, an ill-tempered fellow, could never provoke the good-tempered Maero, who only laughed. Used either as, I'll not be provoked,—or, Don't lose your temper.)

Also those of the race of Apicius:—

Ngati-te-Ata
Te waiu o Poutukeka

The Ngatite-ata tribe eat the soup made from fresh-water muscles, of which Poutukeka was so fond: (the Ngatite-ata live on Manuku harbour, and the lower part of the Waikato, where fresh-water muscles abound.

Likewise the man who goes about telling everybody that "Queen Ann's dead,"—

Ka whaka-Te-Aropiri.

Aropiri was always telling people what they already knew; so a man who brings stale news is said to be making himself like Aropiri.

In England we communicate all miracles to the marines, or speak of any incredible fact as "all my eye." In New Zealand wonders are whispered to the occiput—"it's all my nob" is the phraseology there:—

Korero mai ki taku pahoahoa.

I do not want to hear that; tell it to the back of my head.

The Maori has some idea of pedigree, and differs from Seneca's maxim *Philosophia stemma non inspicit:*—

Toku toa, he toa rangatira.

Do not you boast? I derive my courage from my long line of ancestors (said to a boasting parvenu).

And, consequently, like the British snob, has a proper veneration for every scion of the nobility:—

He aha te hapa noa ai,
Na te Auripo.

What does it signify whether he is ugly or not; he is the child of the great chief Auripo.

Also is primogeniture held in respect:—

He nui muringa, hei ki mai i tona angaanga.

Does it become the youngest-born (although he be of consequence) to argue with his elder brother?

E hara I to tuakana, i te ika o te whakatuatea.

Remember he is your elder brother, born amidst the fears of your mother, who was terrified, never having before borne a child.

Nephews appear to be regarded as nuisances in New Zealand:—

He inati hoki no Mawakeroa,
He iramutu tu ke mai e tarawahi o te awa.

A nephew cannot be depended on in a time of trouble; instead of crossing the river to help you, he'll stand still on the other side of the river whilst you are killed.

(The Spanish proverb is, "To whom God does not give sons, the devil gives nephews.")

The Maori loves liberty :—

He pai aha, to te tutua.
What does it signify if a fellow is handsome, if he is a slave?

And occasionally likes a vigorous simile :—

Kia eke au ki runga ki te puna o Tinirau.
I might as well seat myself on the blow-hole of a sperm whale,—my friends are so constantly scolding me.

He is an ardent lover :—

Ko Hine-moa, ko au.
I am just like Hine-moa; I'd risk all for love.

And a keen observer :—

Ko makeremumu, hupe tautau.
In the winter, drops hang from the nose.

And often makes very philosophical remarks :—

Ko Nukutaumatangi, ko te hara,
Waiho te raru mo Rupe.
Nukutaumatangi was the cause of the disturbance, but Rupe got into the scrape (applied to a person who gets innocent people punished for his scrapes).

At times he is very sarcastic :—

E waru pu hoki.
Twice eight are sixteen.
E waru pu, tautahi.
Sixteen and one are seventeen.
Oh yes, I'm a fool, and you're a fine fellow, I dare say; but I know that twice eight are sixteen, as well as you do; or that sixteen and one are seventeen.

And sometimes enunciates truths which Wallenstein or Napoleon might have benefited by :—

He toa poheke, te toa taua
He who fights too often may lose his fame at last.

Some of the statements give curious, though occasionally doubtful, insights into Maori domestic life :—

He parenga maro to te po.
Stripping off one's clothes, to go to sleep, is the proper work of the night: that is, It is late, leave your work now.

The Maori language is evidently extremely comprehensive,—three words being expanded, in the translation, into seventeen, besides requiring a commentary involving twenty-six more :—

He o kaka.
Carry no more food with you on your journey than the large parrot carries in his claw: (they say the kakas, or large parrots, always carry in one claw, a little pebble, which they pick up on the coast, which they constantly nibble.)

And very often the proverb (or its translator) is wholly unintelligible :—

E kore e pikitia.
A proverb for the kumeras, which were tapu.

We think we have given our readers a sufficient number of extracts to satisfy them that Sir George Grey has produced a work, which, apart from its historical and ethnographic value, may serve to amuse as well as to instruct. An occasional fault (we venture this criticism with all deference) seems to be the translator's love of amplification. The Maori appears to understand the Horatian precept, *Quicquid præcipies, esto brevis*; and we fancy some of their sayings must lose much of their original force by the dilution they occasionally undergo, though, perhaps, unavoidably so. A great change is taking place in Polynesia, and the day must come when the English tongue will supersede the native dialect, and the Maori, as the unit of a separate nationality, become extinct. When that period comes, works like the one before us, and the prescience of the minds that prepared them, will be adequately appreciated. Nor is that change far distant if we may credit a Tahitian prophecy :

"*A harree ta fow*
A toro ta farraro
A now ta tararta."
"The palm tree shall grow,
The coral shall spread.
But man shall cease."

SYNOPSIS FILICUM AFRICÆ AUSTRALIS;

OR, AN ENUMERATION OF THE SOUTH AFRICAN FERNS:

BY L. PAPPE, ESQ., M.D., AND THE HON. RAWSON W. RAWSON, ESQ.

CONCLUDED.

XXII. CAMPTERIA. PRESL. (1 Species.)

79. *Campteria biaurita.* Hook. *Fronds* pinnate, membranaceous, smooth; *pinnæ*, sub-opposite, sessile, pinnatifid, lanceolate oblong, acute (bearing short stipule-like spines on the midrib of the upperside), *lowermost* 2-partite; segments confluent, oblong, blunt and rounded at the apex, all of them quite entire. *Stipes* glossy, stramineous. *Campteria Rottleriana.* (Presl.?) *Pteris nemoralis.* Willd. (?)

In shady localities and clifts. Magalisberg. (Zeyher.); in the forests of Natal. (Plant.) *v. s.*

Very like *Pteris Catoptera.* Kze., but sufficiently different by the venation.

XXIII. ALLOSORUS. BERNH. (8 Species.)

80. *Allosorus hastatus.* Presl. *Fronds* 2 or sometimes 3-pinnate at the lower extremity; *pinnæ* and *pinnules* stalked, alternate, ovate-lanceolate, blunt, eared, or 3-lobed at base, notched, smooth or downy at the *ribs*, crenate and revolute at the margin. *Stipes* half round, channelled on the upper side, glabrous, glossy or paleaceous, and covered at its base with large linear-acute black-purplish scales. *Pteris auriculata.* Thbg. *Pteris hastata.* Schlecht. Adumb., page 42. *Cheilanthes hastata.* Kze. Linnæa, vol. 10, p. 532.

In the forests of Swellendam, George, Uitenhage, Albany, &c. *v. s.*

Of this very variable Fern, the following two are the most striking forms.

1st var. *macrophylla.* Kze. *Fronds* pinnate, or sometimes 2-pinnate at base; *pinnæ* and *pinnules* ovate, cordate, or sub-hastate, somewhat falcate, auricled, very smooth, often $3\frac{1}{2}$ inches long and $2\frac{1}{2}$ inches broad. Linnæa, vol. 10, p. 532.

In the aboriginal forests of the Krakakamma. (Eckl. & Zeyher), and at Natal (Gueinzius. Plant.) *v. s.*

2nd var. *stenophylla.* Kze. *Fronds* 2-pinnate; *pinnæ* and *pinnules* linear-lanceolate, acuminate, narrow, hastate, middle lobe elongated, nearly two inches long; *petioles* short, and as well as the *rachises*, downy. Kze. Linnæa, l. c. p. 533. *Pteris hastæfolia.* Schrad.

Near Philipstown, Kat River. (Eckl. & Zeyh.) *v. s.*

81. *Allosorus Calomelanos.* Presl. *Fronds* 2-pinnate, or 3-pinnate in the lower half; *pinnæ* and *pinnules* stalked, alternate, 3-angular-cordate, obtuse; terminal ones cordate, often 5-angular, all of them coriaceous, smooth. *Stipes* flexuose, slightly paleaceous at base, and like the *rachises* brittle, polished and ebenous. *Caudex* tufted, sub-globose, and thickly clothed with narrow ferruginous scales; *roots* fibrous, shaggy. *Pteris hastata.* Thbg. *Pteris Calomelanos.* Sw. Kunze & Schlecht. Adumb., p. 43, tab. 30.

Between fissures of rocks; very common all over South Africa. *v. v.* and *s.*

82. *Allosorus auriculatus.* Presl. *Fronds* pinnate smooth; *pinnæ* either alternate or opposite, sub-sessile, ovate, or ovate lanceolate, auricled or sub-pinnatifid at base, entire or crenulated; *lower ones* rounded, *upper ones* oblong, all of them blunt; *margin* and *involucres* notched. *Stipes* smooth,

or slightly paleaceous, purplish, glossy. *Caudex* clothed at base with pointed, linear ferruginous scales; *roots* fibrous, woolly. The whole fern little more than a span high. *Adiantum auriculatum.* Thbg. *Pteris auriculata.* Sw. Schlecht. Adumb. p. 41. tab. 23. *Cheilanthes auriculata.* Link. & Kze. Linnæa, vol. 10, p. 531.

Near water-courses, Rondebosch; in moist and shady places on Table and Devil's Mountains and elsewhere common. *v. v* and *s.*

83. *Allosorus andromedæfolius.* Kaulf. *Fronds* 2-pinnate, 5-6 inches long; *pinnæ* remote, patent; *lower ones* 2-pinnate, *upper ones* pinnate; *inferior pinnules*, 3-foliate; *leaflets* stalked, oblong-ovate, blunt, revolute at the margin; *involucres* short. *Stipes* round, sparingly scaly. *Caudex* creeping, paleaceous; *roots* filiform, shaggy. Kaulf. Enum. Filic. p. 188.

In dry localities at Kendo. (Drege.)

*84. *Allosorus consobrinus.* Nob. *Fronds* 4-pinnate or 3-pinnate, pinnatifid, sub-triangular, straight, coriaceous, smooth; *pinnules* oblong-ovate, lower ones and those of the apex pinnatifid at base; terminal ones elongated, sterile ones, broad crenate, fertile ones narrow, quite entire. *Stipes* and *rachises* flexuose, furrowed, dark purple, glossy, the former covered at its base with comose paleaceous scales. *Pteris consobrina.* Kze. Linnæa, vol. 10, p. 526.

In the forests of the Knysna (Miss Dalgairns), Krakakamma, (Eckl. & Zeyher), near Fort England, Albany. (Dr. Atherstone), and in Kaffraria (Drege.) *v. s.*

*85. *Allosorus coriifolius.* Nob. *Fronds* 3-pinnate, coriaceous, glabrous, glossy above, pale below; middle and lower *primary pinnæ* and *pinnules* remote, terminal ones, short stalked, approximate, confluent at the apex, all of them patent, oblong, acuminate, flexuose or curved; *secondary pinnules* sessile, divergent, ovate oblong, blunt, sub-auriculate, slightly pinnatifid: *segments* ovate, rounded, rather notched. *Rachises* and the short *stipes* angular, flexuose, covered with rufous down. *Pteris coriifolia.* Kze. Linnæa, vol. 18, p. 120.

In the dense woods of Natal (Gueinzius.)

86. *Allosorus capensis.* Presl. *Fronds* 2-3-pinnate, coriaceous, hairy on the under surface; *upper pinnules* entire or auricled at base, *lower* ones, divided down to the mid-rib; *segments* adnate, confluent at top; *margins of the pinnæ* and their *segments*, inflexed, crenulated; *involucres* fringed. The very robust *stipes* as well as the *rachises* muricated. *Caudex*

descendant, woolly. *Pteris capensis.* Thbg. Schlecht. Adumb., p. 45.

Common in woody, rough, stony places, &c., in all parts of South Africa, *v. v.* and *s.*

87. *Allosorus aquilinus.* Presl. *Fronds* 3-partite coriaceous; branches 2-*pinnate; pinnules* sub-sessile, linear-lanceolate, the superior ones undivided, the inferior ones pinnatifid; *segments* remote, lanceolate-oblong, obtuse. *Stipes* smooth. *Pteris aquilina* Lin. Schkuhr. Filic. Tab. 95.

In a forest on the sources of the Kat River near Philiptown. (Eckl. & Zeyher.)

XXIV. CRYPTOGRAMMA. R. BR. (1 Species.)

*88. *Cryptogramma robusta.* Nob. Fertile *frond* 3 inches high, 2-pinnate-pinnatifid, oblong, smooth; *pinnules* and *segments* oblong-ovate, blunt, wedge-shaped at base. *Rachises* and the short channelled *stipes* curved or flexuose, purple, glabrous. *Caudex* stout, creeping, paleaceous. *Allosorus robustus.* Kze. Linnæa, vol. 10, p. 502.

Between rocks near Goedemanskraal, Namaqualand. (Drege.) *v. s.*

XXV. ADIANTUM. LIN. (2 Species.)

89. *Adiantum Capillus Veneris.* Lin. *Frond* 3-4-pinnate ovate; *pinnules* delicately membranaceous, smooth, obliquely broad cuneate, tapering into a slender stalk; the superior edge deeply and irregularly inciso-lobate; *lobes* obtuse or truncate soriferous. *Sori* as broad as the lobes, oblong or sub-reniform. *Stipes* and *rachis* ebenous, glabrous, polished. Hook. Spec. Filic. vol. 2, p. 36., tab. 74, B.

Between rocks on Table Mountain, &c; also in the woods near the Kat River, and at Natal. *v v.* and *s.*

90. *Adiantum aethiopicum.* Lin. *Frond* 3-4-pinnate, oblong-ovate, membranaceous, smooth; *pinnules* sub-orbicular, obliquely cuneate at base, stalked; superior margin more or less lobed; notches of the lobes soriferous; *sori* large, *involucres* oblong-lunate. *Stipes* slender, compressed; *rachis* ebenous, glabrous, glossy. *Caudex* fibrous. Hook., l. c., p. 37, tab. 77 A.

Common in moist, shady places in all parts of the colony. *v. v* and *s.*

XXVI. CHEILANTHES. SW. (16 Species.)

91. *Cheilanthes pteroides.* Sw. *Fronds* 3-pinnate, coriaceous, smooth; *pinnæ* and *pinnules* remote, the latter stalked,

cordate, elliptical, obtuse, crenate, opaque; *involucres* contiguous, sub-round membranaceous, extending over the whole margin. *Stipes* and *rachises* woolly at their axils, stout, ebenous, glossy. *Caudex* creeping, scaly. Hook., Spec. Filic. vol. 2, p. 80, tab. 101, A. *Adiantum pteroides.* Lin.

In shady, damp places, and between rocks near Cape Town, the Paarl, Tulbagh, &c.; also at Natal. *v. v.* and *s.*

92. *Cheilanthes capensis.* Sw. *Fronds* 2-3-pinnate, deltoid, membranaceous, smooth; *pinnules* adnate, decurrent, ovate, or oval-oblong, crenate-dentate, rarely pinnatifid; *involucres* fringed at the margin; *sori* numerous, approximate. *Stipes* ebenous, shining, scaly. *Caudex* creeping, paleaceous. *Adiantum capense.* Thbg. & Kze. *Hypolepis capensis.* Hook. Spec. Filic., vol. 2, p. 71, tab. 77, c.

In shady localities between rocks in many parts of the colony. *v. v* and *s.*

93. *Cheilanthes multifida.* Sw. *Frond* 3, below 4-pinnate, deltoid-ovate, acute, coriaceous, glabrous; *primary pinnæ* rather opposite, broad-ovate, sub-deltoid, stalked; *pinnules* or segments oblong, pinnatifid, *lobes* sub-round, each bearing 2-4 involucres. *Stipes* and *rachises* brittle, deep ebony, black, glossy. *Caudex* clothed with black subulate scales. Hook. l. c., p. 90, tab. 100, b.

In rocky and stony places in most parts of South Africa. *v. v.* and *s.*

* 94. *Cheilanthes refracta.* Nob. (N. sp.) *Frond* 2-3-pinnate, deltoid, rigid, perfectly smooth; *pinnæ* alternate, remote, deltoid-ovate, patent, upper ones sub-sessile, middle and lower ones stalked; *petioles* more or less reflexed; *pinnules* lanceolate-oblong, sessile, confluent at the apex, and as well as the intermediate ones crenate; *lowermost* distant, pinnatifid. *Stipes* short, half round, channelled on the upper side, flexuose, and like the *rachises*, glossy.

In Griqualand (Mr. Robert Moffatt, 1857). *v. s.*

95. *Cheilanthes triangula.* Kze. *Frond* 3-pinnate, triangular, coriaceous, smooth; *pinnæ* and *pinnules* remote, patent, stalked; *secondary pinnules* or lobes oblong, obtuse, sinuate lobate, margined; the *margin* inflexed, crenate; *involucres* marginal; *sori* contiguous. *Stipes* and *rachises* flexuose, stiff, purple, slightly hairy. *Caudex* short. Kze. Linnæa, vol. 10, p. 535. Hook. l. c., p. 91.

Rocky places in the Sneeuwbergen, Witbergen and Compasberg. (Drege) in similar localities at Natal. (Dr. F. Krauss.) *v. s.*

96. *Cheilanthes Bergiana.* Schlecht. *Fronds* 3-pinnate membranaceous, sparingly hairy on both sides; *primary pinnæ* ovate, sub-acuminate; *secondary ones* rather obtuse; *pinnules* and primary lobes subovate, almost oblique, entire, or pinnatifid; *involucres* small, situated at the inner margin of the lobe. *Stipes* and primary *rachises* deep purple, black, and as well as the secondary rachises and ribs clothed with rusty hairs. Schlecht. Adumbr., p. 51. *Hypolepis Bergiana.* Hook. l. c. p. 67.

In thickets and at the borders of the forests in the Swellendam, George, and Uitenhage districts; also at Kat River and Natal. *v. s.*

97. *Cheilanthes elata.* Kze. *Frond* 4-pinnate-pinnatifid, 3-angular, membranaceous; *pinnæ* and *primary pinnules* stalked, remote, erect, and as well as the *secondary ones* subsessile, ovate-lanceolate, acuminated; *tertiary ones* oblong, blunt, sinuate, or inciso-pinnatifid, slightly clothed with whitish hairs; *sori* and *involucres* semi-orbiculate. *Stipes* and *rachises* flexuose, rough, covered with reddish chaffy hairs. Kze. Linnæa, vol. 10, p. 542. *Hypolepis elata.* Hook, l. c., p. 67.

In woods at Koratra (Drege.)

98. *Cheilanthes hirta.* Sw. *Frond* 2-3-pinnate, lanceolate or oblong-lanceolate, sub-coriaceous, hairy on both sides; *primary pinnæ* lanceolate, lower ones opposite, distant; *pinnules* oblong or pinnatifid-ovate or crenulate, the *lobes* with the margins recurved, soriferous; *sori* numerous, confluent. *Stipes* short, purplish-brown, glossy, very hairy, and more or less glandular, shaggy at the base with long subulate scales. *Caudex* almost creeping; *roots* tufted. Schlecht Adumbr. p. 50. Kze. Linnæa., vol. 10, p. 539. Hook, l. c., p. 92, tab 101, b.

Extremely changeable in form, according to the very different habitats of the species.

The following are the principal varieties enumerated by Kunze, l. c.

1st var. *contracta.* *Frond* 2-pinnate, rather rigid, often curved; *pinnules* approximate, oblong, erect; larger pinnules folded, and thickly clothed with rufous shag; *stipes* and *caudex* more or less smooth at base.

2nd var. *intermedia.* *Frond* 2-pinnate; *pinnæ* short, ovate, and as well as the minute and plane *pinnules* approximate; base of the *stipes* and *caudex* closely surrounded by long scales.

3rd var. *laxa.* *Frond* 2-3-pinnate; *pinnæ* and *pinnules* oblong-lanceolate, plane, remote, pinnatifid and incised; *stipes* and *rachises* fringed with rufous hairs. *Notholæna capensis.* A. Sprengel. Suppl. ad. Lin. Syst. Vegetab. p. 32.

4th var. *parviloba.* *Frond* 2-3-pinnate, calvescent, *pinnæ* lanceolate, elongated, distant; *pinnules* sub 3-lobed or auricled at base; *lobes* obtuse, convolute, middle one linear-oblong; *stipes* slightly paleaceous at base; *rachis* paleaceo-hirsute. *Cheilanthes parviloba.* Sw.

In rocky, shady, or open situations, and widely diffused over the whole of South Africa. *v. v.* and *s.*

* 99. *Cheilanthes glandulosa.* Nob. (N. sp.) *Frond* 2-3-pinnate, sub-coriaceous, linear-lanceolate; *primary pinnæ* remote, sub-opposite at base, alternate above, erect, pinnate, shortly stalked, oblong-ovate, obtuse, rough and opaque on the upper, paler and almost smooth on the under surface; *pinnules* subsessile, oblong, deeply lobed, blunt; *lobes* with the margins recurved, soriferous; *sori* copious, confluent. *Stipes* and *rachises* purple, fringed with delicate glandular shag.

Related to the preceding species, and very like *C. hirta* var. *laxa.* Kze. It seems however to be different.

In Griqualand (Mr. Robert Moffatt, 1857.) *v. s.*

100. *Cheilanthes induta.* Kze. *Frond* sub 4-pinnate, oblong, obtuse, coriaceous; *pinnæ* rather remote, stalked, ascending; *pinnules* shortly stalked, ovate, *secondary* oblong *tertiary,* and the *segments* roundish-ovate, all glabrous above, paleaceo-hirsute beneath; *involucres* marginal, crenulate, and as well as the *sori* continuous. *Stipes* flexuose, sparingly, and the *rachises* densely paleaceo-hirsute, purple. *Caudex* creeping. Kze. Linnæa, vol. 10, p. 538. Hook, l. c., p. 92, tab. 102, A.

In rocky, shady places in the Sneeuwbergen (Drege.)

101. *Cheilanthes deltoidea.* Kze. *Frond* 2-pinnate pinnatifid, 3-angular, sub-coriaceous, smooth; *pinnæ* obliquely ovate; *pinnules* and *segments* ovate, obtuse, with the cuneate base decurrent. *Stipes* smooth; *rachises* margined; *involucres* marginate, crenulated, continuous. *Sori* broad. Kze. Linnæa, vol. 10, p. 535. Hook, l. c., p. 106.

In the fissures of the rocks near Silverfontein, Little Namaqualand (Drege.) *v. s.*

102. *Cheilanthes profusa.* Kze. *Frond* pinnate, oblong-lanceolate, obtuse, sub-coriaceous; *pinnæ* often opposite, smooth, *uppermost* lanceolate, approximate, sub-connate, entire; *lower ones* ovate or deltoid, remote, acuminated,

shortly stalked, deeply pinnatifid or sometimes pinnate at their bases; *pinnules* and *segments* lobed or pinnatifid; *costæ* hispid with narrow subulate scales; *involucres* continuous. *Stipes* and *rachises* hispid with paleaceous scales. *Roots* creeping, scaly. Kze. Linnæa, vol. 10, p. 535. Suppl. to Schkuhr's, Filic., tab. 17. Hook, l. c., p. 108.

Between rocks near Silverfontein (Drege) on Karroo-like hills at Buffeljagdsriver and Rietkuil. (Zeyher.) *v. s.*

103. *Cheilanthes cornuta.* Kze. *Frond* 2-pinnate, linear-lanceolate; *pinnæ* ovate approximate, the lowermost sub-opposite, stalked; *pinnules* sessile, sub-ternate, 2-3-fid, oblong, obtuse, coriaceous. *Sori* at length diffused. *Stipes* and *rachis* rigid, naked. Kze. Linnæa, vol. 10, p. 534. Hook, l. c., p. 109.

Near Hex River, Worcester (Eckl. & Zeyh.), and on dry stony hills near Enon, and the little Fish River (Drege.) *v. s.*

104. *Cheilanthes Atherstoni.* Hook. *Frond* 4-pinnate, deltoid, glabrous; *primary pinnæ* ovate-deltoid, and as well as the *secondary* and *tertiary pinnæ*, stalked; the lower ones distant, the upper ones more approximate; *pinnules* sessile, oblong, entire or pinnatifid in their lower half; *involucres* formed of the inflexed margins of the pinnules, pale and membranaceous at the edge, generally continuous; the edge more or less crenate or lobed. *Stipes* and principal *rachis* purple, ebenous, glossy. Hook, l. c., p. 107.

In the district of Somerset (Dr. Atherstone.)

105. *Cheilanthes firma.* T. Moore. *Frond* 3-4-pinnate, smooth, coriaceous, pentagonal acuminate, 1-1½ feet long; *inferior pinnules* of the lower pinnæ obliquely deltoid; *primary pinnæ* of lowest inferior pinnæ, pinnate, ovate-lanceolate, deeply pinnatifid, the *segments* oblong, bluntish, with notched margins; the lowest *secondary pinnules* stalked, the *intermediate ones* either stalked or sessile, lanceolate-oblong, scarcely pinnatifid; the uppermost ones connate, pointed. *Stipes* and *rachises* smooth, brown, shining, channelled. *Sori* continuous; *involucres* lobed, crenate. T. Moore, in Hook, Journ. of Botan. and K. G. Miscellany, vol. 5, p. 225.

According to Mr. Moore, this species is nearly related to *C. Atherstoni.* Hook.

On the sides of mountain streams. Natal (Plant.)

106. *Cheilanthes linearis.* T. Moore. *Frond* 4-pinnate, deltoid, coriaceous smooth, 6 inches high; *ultimate pinnules* all distinct, small, linear, obtuse, the *terminal one* of the same form; *sori* numerous; *involucres* continuous, narrow, slightly

waved. *Stipes* and *rachises* round behind, plane and margined in front, purple, glossy. T. Moore, l. c., p. 226.

In rocky places near Impafane, Natal (Plant.)

XXVII. HYPOLEPIS BERNH. (2 Species.)

107. *Hypolepis anthriscifolia.* Presl. *Fronds* 3-pinnate, hairy on the mid-rib and veins beneath, membranaceous; *primary pinnæ* oblong-ovate, acuminate; *secondary ones* broad, oblong; *pinnules* linear-oblong, sub-falcate, deeply pinnatifid; *segments* small, entire or toothed, bearing solitary *sori* in the inner margin; *involucres* squamiform. *Stipes* and *rachises* glabrous. *Cheilanthes sparsisora* Schr. *C. commutata.* Kze. Linnæa, vol. 10, p. 542. Hook. Spec. Filic., vol. 2, p. 66, tab. 95. A.

In the forests near Plettenberg's Bay, in the Zuurbergen (Albany), at Natal (Plant, No. 369), &c. *v. s.*

108. *Hypolepis aspera.* Prl. *Fronds* 3-pinnate, sub-coriaceous; *primary pinnæ* alternate, lanceolate, curved, erect, stalked; *pinnules* sub-sessile or shortly petioled, lance-shaped, pinnatifido incised; *segments* sub-dentate; *rachis* rough; *sori* solitary at the superior base of the segments; *involucres* sub-reniform. *Stipes* almost smooth, glossy. *Caudex* creeping, shaggy; *roots* filiform. *Cheilanthes aspera.* Kaulf, Linnæa, vol. 6, p. 186. Hook, l. c., p. 67.

In shady localities near the cataract on the Devil's Mountain, near Genadendal (Caledon), in the forests of George, Albany, &c. *v. v.* and *s.*

XXVIII. LONCHITIS. LIN.

109. *Lonchitis natalensis.* Hook. *Fronds* 2-pinnate, moderately hairy on both sides; *pinnæ* more or less stalked, the upper half, *pinnatifid*; *pinnules* sessile, broad lanceolate, acuminate, nearly entire or somewhat lobed in the lower half; *lobes* rounded, undivided, short, the sinuses and entire margins soriferous; *sori* small. *Stipes* and *rachis* downy. Hook. Spec. Filic., vol. 2, p. 57, tab. 89. B.

In the primæval forests of Natal. (Gueinzius.) *v. s.*

110. *Lonchitis glabra.* Bory. *Fronds* 2-pinnate membranaceous, with scattered fulvous hairs on the stipes, rachis, mid-rib, and veins on both sides; *pinnæ* sessile oblong-ovate, acuminate, pinnatifid at the apex; *pinnules* lanceolate, obtuse, lobed or pinnatifid, all of them decurrent, so as to constitute a broadly-winged rachis to the pinnæ; the *inferior pinnule* above (next to the main rachis), dwarfish; *lobes* round, entire; sinuses soriferous; *sori* small, lunate.

Stipes paleaceous at the base. Schlecht. Adumbr. p. 47. Hook, l. c. p. 57. Kunze Suppl. to Schkuhr, tab. 66.

In the forests of the Tzitsikamma (Mundt, Dr. Alexander, Dr. Rubidge) at Natal. (Drege.) *v. s.*

VII. VITTARIACEÆ. Presl.

XXIX. VITTARIA. SM. (1 Species.)

111. *Vittaria lineata.* Sw. *Fronds* linear, narrow, very long, membranaceous, pendulous. *Sori* solitary, intermarginal. *Caudex* bulbose, shaggy; *roots* fibrous. Schlecht. Adumbr., p. 33. Schkuhr. Filic., tab. 101 b.

In woods near Swellendam (Mundt), in the forests of George (Drege.), in Blockhouse Kloof, near Graham's Town (Dr. Atherstone), and at Natal (Gueinzius.) *v. s.*

VIII. POLYPODIACEÆ. Presl.

XXX. POLYPODIUM. LIN. (2 Species.)

112. *Polypodium vulgare.* Lin. *Fronds* deeply pinnatifid, its *segments* linear lanceolate, blunt, crenulate at the margins, approximate; upper ones gradually smaller. *Sori* circular, placed in a single line on each side of the midrib at the upper portion of the frond. *Rhizome* creeping, chaffy. Schkuhr's Filic., tab. 11.

In the fissures of rocks on Table Mountain; also at George, Albany, Kat River, and in Kafirland. *v. s.*

113. *Polypodium Bergianum.* Schlecht. *Fronds* hairy on both sides: *pinnæ* alternate or opposite, pinnatifid, acute; *segments* alternate, oblong, obtuse, ciliated, slightly gnawed at the borders. *Stipes* and *rachises* clothed with shaggy down; *sori* small in one row between the midrib and the margin. Schlecht. Adumb., p. 20, tab. 9.

In shady places at the foot of Table Mountain, Witteboom, and Kirstenbosch (Bergius, Mundt, Drege), near the cataract on the Devil's Peak (Ecklon), at Natal (Dr. Krauss.)

XXXI. GONIOPTERIS. PRESL. (1 Species.)

* 114. *Goniopteris silvatica.* Nob. *Frond* pinnate 3-4 feet high, smooth, dark green at the upper, pale at the underside, sub-coriaceous; *pinnæ* obliquely truncate at base, sessile, oblong-lanceolate, long and narrowly tapering towards the apex, acuminate, remote, inciso-pinnatifid; *lower ones* nearly opposite, *upper ones* alternating; *segments* oblong, falcate, obtuse; *veins*, *rachises*, and the 3-cornered furrowed *stipes* slightly downy; *sori* minute. *Gymnogramma unita.* Kze. Linnæa, vol. 18, p. 115.

In the primæval forests of Natal. (Gueinzius.) *v. s.*

XXXII. MARGINARIA. BORY. (1 Species.)

115 *Marginaria ensiformis.* Presl. *Frond* coriaceous, smooth, ovate-oblong, wedge-shaped below, 3-fid, pinnatifid; pinnate at base or sometimes simple; *segments* of the *sterile frond* opposite, attenuated at top, rather acute; those of the *fertile ones* linear ensiform, blunt, repando-crenate, decurrent; *sori* circular in a single row. *Stipes* short; *rhizome* creeping, paleaceous. *Polypodium ensiforme.* Thbg. Kze. Suppl. to Schkuhr's Filic., p. 117, tab. 54.

At the trunks of decayed trees in the forests of Swellendam and George; also at Natal. *v. s.*

XXXIII. PLEOPELTIS. HUMB. & BONPL. (3 Species.)

116. *Pleopeltis lepidota.* Presl *Frond* lanceolate, much narrowed towards the base, rather blunt at the apex, quite entire or sinuate, coriaceous, almost naked on the upper surface, and covered with minute scales below. *Sori* large, cushioned, solitary; *rhizome* creeping, paleaceous. *Polypodium adspersum.*. Schr. *P. lepidotum.* Schlecht. Adumb. p, 17, tab. 8.

In woods and shady spots near Cape Town, Kirstenbosch, Paradise, &c., and in the districts of Swellendam, George, Albany, &c.; also at Natal. *v v.* and *s.*

* 117. *Pleopeltis Eckloni.* Nob. *Frond* lanceolate-ovate, deeply pinnatifid; *segments* broad at base, remote, alternate, patent, oblong, rather blunt, perfectly entire, glossy on the upper side, and covered below (as well as the *costa* and the *stipes* with loose scales. *Sori* cushioned, submarginal. *Polypodium Ecklonii.* Kze. Linnæa, vol. 10, p. 498.

Parasitical on old trees in the forests of Uitenhage, Beaufort, and Kaffraria (Eckl. & Zeyh.); also at Natal (Drege.) *v. s.*

118. *Pleopeltis lycopodioides.* Presl. *Frond* subsessile, lanceolate, or linear-lanceolate, narrowed at both ends, obtuse, glabrous. *Sori* large, placed in one row on each side of the midrib. *Caudex* creeping, scaly. *Polypodium lycopodioides.* Willd. Spec. Plant, vol. 5, p. 150. Schkuhr. Filic., tab. 8. c.

Creeping and climbing at the foot of old trees, in the forests of Natal (Gueinzius.) *v. s.*

XXXIV. PHYMATODES. PRESL. (3 Species.)

119. *Phymatodes vulgaris.* Presl. *Frond* simple, elongated 3-angular, coriaceous, smooth, deeply 3-lobed at the apex, decurrent at base; *segments* lanceolate, patent, acuminate, quite entire; *sori* almost circular, scattered, immersed. *Stipes* broadly winged in the upper portion of the frond. *Rhizome*

creeping, scaly. *Polypodium phymatodes.* Lin. Willd. Spec. Plant, vol. 5, p. 167. Schkuhr. Filic., tab. 8. d.

On the trunks of old trees in the aboriginal forests of Natal. (Gueinzius Plant.) *v. s.*

120. *Phymatodes irioides.* Presl. *Frond* cartilaginous, simple, elongated, quite entire, oblong-lanceolate, sword-shaped, attenuated at the base, reticulated, perfectly smooth. *Sori* minute, numerous, scattered. *Rhizome* creeping, scaly. *Polypodium irioides.* Poir. Sprng. Syst. Vegetab., vol. 4, p. 48.

In the forests of Natal (Gueinzius) *v. s.*

121. *Phymatodes elongata.* Presl. *Frond* linear-lanceolate, narrowed at both ends, entire, subcoriaceous, smooth. *Sori* impressed in one single row on each side of the costa. *Caudex* creeping. *Polypodium elongatum.* Schr. Schlecht. Adumb., p. 16, tab. 7.

On the stems of old trees in the forests of George (Mundt. Ecklon), near the bath of Olifant's River (Rev. Hesse.); in Block-house Kloof, Graham's Town (Dr. Atherstone); near Boontjes River, &c. (Drege.) *v. s.*

XXXV. NIPHOBOLUS. KAULF. (1 Species.)

122. *Niphobolus africanus.* Kze. *Frond* lanceolate, shortly stalked at base; costate, margined, stellate tomentose and hoary beneath; rather smooth above; top of the *sterile frond* shortened, blunt; *fertile one* narrowed into a long, obtuse, soriferous apex. *Sori* minute, confluent. *Caudex* creeping, densely scaly. Kze. Linnæa, vol. 10, p. 501. Suppl. to Schkuhr's Filic., tab. 33.

Between rocks and on the trunks of trees in the woods of Natal. (Drege.) *v. s.*

IX. GRAMMITACEÆ. PRESL.

XXXVI. GRAMMITIS. PRESL. (1 Species.)

123. *Grammitis totta.* Presl. *Fronds* pinnate, lanceolate, membranaceous (and as well as the *stipes* and *rachises*) hairy on both sides; *pinnæ* alternate, sessile, pinnatifid, lanceolate, acuminated; the upper ones adnate, confluent, the lower ones remote; *segments* opposite, ovate, blunt, gnawed, ciliated; *sori* linear, small. *Stipes* short; *rhizome* descending; *roots* filiform. *Gymnogramma totta.* Schlecht. Adumb., p. 15, tab. 6.

Near the cataract on the Devil's Mountain (Mundt. Pappe); in a wood near Koratra (Drege); in the forests of the Knysna (Dr. Krauss.)

XXXVII. GYMNOGRAMMA. DESV. (3 Species.)

124. *Gymnogramma conspersa.* Kze. *Frond* delicate, membranaceous, pale green on the upper surface, and covered beneath with a white mealy substance; ovate triangular, acuminated, 3-partito 2-pinnatifid; *pinnæ* trapezoid, inciso-pinnatifid, wedge-shaped and decurrent at base; *segments* cuneate, 2-fid, blunt; *sori* few, seeded. *Stipes* long; *rachises* and *ribs* purplish. *Caudex* tufted. Kunze. Linnæa., vol. 18, p. 116.

In the crevices of rocks near the cataract between Omfondi and Tugela Rivers, Natal. (Gueinzius.) *v. s.*

* 125. *Gymnogramma namaquensis.* Nob. (N. sp.) Annual. *Frond* (about 4 inches long), membranaceous, smooth, pinnato-pinnatifid; *pinnæ* alternate, distant, lanceolate oblong, rough on the upper surface, glandular and scaly beneath; *segments* inciso-crenate. *Stipes* flexuose, erect, and as well as the *rachis* denselypaleaceous. *Caudex* short, cæspitose, obliquely descending.

Between rocks near Modderfontein, Namaqualand (Rev. H. Whitehead, 1856.) *v. s.*

126. *Gymnogramma leptophylla.* Desv. Annual. *Frond* slender, very delicate, 2-pinnate, smooth, 3 inches high; *pinnules* roundish-cuneate, sub-trilobed; *lobes* bluntly 2-dentate; *sori* confluent; *roots* filiform. *Grammitis leptophylla.* Sw. Willd. Spec. Plant., vol. 5, p. 143. Schkuhr. Filic., tab. 26.

In moist vegetable soil, near the cataract on the east side of the Devil's Mountain—rare. (Mundt, Dr. Alexander, 1848.) *v. s.*

X. TÆNITIDEÆ. PRESL.

XXXVIII. NOTHOLÆNA. R. BR. (3 Species.)

127. *Notholæna Ecklóniana.* Kze. *Frond* 2-pinnato-pinnatifid, lanceolate, hoary above, clothed beneath with rufous shaggy scales; *pinnæ* opposite, 3-angular-ovate; *pinnules* oblong, the lowermost bent downwards, and as well as the middle ones deeply incised; *segments* ovate-oblong, blunt; the uppermost entire, confluent. *Caudex* short, ascending, paleaceous. Kze. Linnæa, vol. 10, p. 501.

In the mountains of Uitenhage, Beaufort, Kat River, Kaffraria and Natal. (Eckl. & Zeyher, Krebs, Drege, Dr. Rubidge); and on hills along the Orange River, and Gamohana range, Griqualand. (Mr. Robt. Moffatt.) *v. s.*

* 128. *Notholæna Rawsoni.* Pappe. (N. sp.) *Frond* pinnate, linear oblong, stout, coriaceous, about 6-7 inches long, dark green, somewhat rough on the upper surface, covered beneath

with thick ferruginous or white shaggy filt; *pinnæ* alternate, remote, short, pinnatifid; upper ones sessile, lowermost opposite, smaller, shortly petioled; *segments* ovate, rounded. *Stipites* aggregate flexuose, black-purple, shining, clothed with fugacious shag. *Caudex* creeping, densely surrounded by linear-acute, margined scales.

On hills inter Spectakel and Komaggas, Namaqualand. (Rev. H. Whitehead, July, 1856.) *v. s.*

129. *Notholæna inæqualis.* Kze. *Frond* ovate-oblong, bluntly acuminate, coriaceous, stiff, hairy on the upper surface, clothed with thick rufous shag at the underside, 2-*pinnate* at base, simple above, confluent at the apex; *pinnæ* opposite or alternate, remote, patent, unequally sided; lower ones stalked, almost 3-angular-oblong, subfalcate obtuse; *pinnules* sinuate, the lowermost bent downwards, inciso-pinnatifid, elongated; *sori* concealed under the shag. *Stipes* and the stout *rachises* flexuose, ebenous, hairy. *Rhizome* horizontal, densely scaly. Kze. Suppl. to Schkuhr. Filic., p. 146, tab. 64, fig. 1.

In the fissures of rocks in the Magalisberg. (Zeyher.) *v. s.*

XXXIX. PTEROPSIS. DESV. (1 Species.)

130. *Pteropsis angustifolia.* Desv. *Fronds* fascicled, linear-lanceolate, erect, simple, perfectly entire, coriaceous, smooth, tapering towards the base into a short *stipes; sori* marginal. *Rhizome* round, covered with linear ferruginous scales. *Pteris angustifolia.* Sw.

Between rocks on the mountains near Genadendaal. (Rev. C. R. Kölbing.) *v. s.*

XI. ACROSTICHACEÆ. PRESL.

XL. STENOCHLÆNA. J. SMITH. (1 Species.)

* 131. *Stenochlæna Meyeriana.* Nob. *Fronds* oblong, lanceolate; *sterile frond* pinnate, *pinnæ* alternate, lanceolate, acuminate, smooth, glossy, very veiny, twice and irregularly serrate; *ribs* furrowed on the upper side; *fertile frond* 2-pinnate; *pinnæ* alternate, *pinnules* linear, sub-recurved at the apex, rather obtuse; *partial rachises* slender, flexuose. *Caudex* bent, angular, rough, climbing. *Lomaria Meyeriana.* Kze. Linnæa, vol. 10, p. 509.

Climbing up large trees in damp ravines near the coast of Natal. (Drege, Plant, Gueinzius.) *v. s.*

XLI. OLFERSIA. RADDI. (2 Species.)

132. *Olfersia angustata.* Presl. *Frond* oblong, blunt, smooth, tapering down into a long *stipes*; *fertile ones* longer

and narrower. *Caudex* creeping, clothed with broad fulvous scales. *Acrostichum angustatum.* Schr. Schlecht. Adumb., p. 14, tab. 5.

In clefts of rocks on the east side of Table Mountain, at Hottentot's Holland, Caledon, Swellendam, George, &c. *v. v.* and *s.*

133. *Olfersia conformis.* Presl. *Frond* oblong, acute, glabrous on the upper, paler and slightly scaly on the under surface, tapering down into a stalk, entire; *fertile ones* somewhat longer. *Caudex* creeping, paleaceous. *Acrostichum conforme.* Sw.

On the face of rocks on Table Mountain, at Caledon, Swellendam, in Albany, &c. *v. s.*

XLII. ACROSTICHUM. LIN. (1 Species)

134. *Acrostichum inæquale.* Willd. *Frond* pinnate, coriaceous, smooth; *pinnæ* alternate, lanceolate-oblong, quite entire, unequally wedge-shaped at base; all of them blunt, terminated by a hard short point. Willd. Enum. Plant, vol. 5, p. 117.

In marshy soil near the Natal coast. (Dr. F Krauss, Plant.) *v. s.*

XII. HYMENOPHYLLEÆ. ENDL.

XLIII. HYMENOPHYLLUM. SM. (2 Species.)

135. *Hymenophyllum tunbridgense.* Sw. *Fronds* pinnate, small, tender, quite smooth; *pinnæ* distichous, pinnatifid; *segments* linear, truncate, entire or 2-fid, and as well as the supra-axillary, solitary, compressed *involucres*, spinuloso-serrate; the *valves* semi-orbicular; *rachis* winged above. *Stipes* filiform procumbent. Hook, Spec. Filic., vol. 1, p. 95. Schkuhr's Filic., tab. 135. d.

In shady, moist places between rocks on Table Mountain, at Hottentot's Holland, &c. *v. v.* and *s.*

136. *Hymenophyllum rarum.* R. Br. *Fronds* pinnate, flaccid, decompound, linear oblong; *pinnæ* pinnatifidly incised; *segments* entire, obtuse, erect; *involucres* rhomboid, wedge-shaped at their lower half, the upper forming two semicircular entire compressed valves. *Stipes* slender. Hook. Spec. Filic, vol. 1, p. 101. R. Br. Prodrom, Flor. Nov. Holland, p. 159. *H. fumarioides.* Bory. Schlecht, p. 56.

In the same localities with the former, also in Blockhousekloof, Graham's Town. (Dr. Atherstone.) *v s.*

XLIV. TRICHOMANES. LIN. (3 Species.)

137. *Trichomanes Filicula.* Bory. *Fronds* pinnate, smooth, opaque, ovate-lanceolate; *pinnæ* 2-3-fid; *segments* linear,

blunt, retuse, entire ; *involucres* solitary, supra-axillary, cylindrical 2-lipped, tapering at the base, immersed or winged at the sides. *Stipes* short, compressed, margined at its upper portion; *caudex* creeping, clothed with dense black down. Hook. Spec. Filic., vol. 1, p. 124. *Trichomanes melanotrichum.* Schlecht. Adumb., p. 56. *Hymenophyllum alatum.* Schkuhr. Icon. Filic., tab., 135. b.

On the trunks of old forest trees, near Genadendal, Plettenberg's Bay, Graham's Town, &c.; also in Kaffraria *v. s.*

138. *Trichomanes pyxidiferum.* Lin. *Frond* 2-3-pinnatifid oblong-ovate, pellucid, membranaceous, not margined, somewhat glossy ; *segments* linear, smooth, entire or emarginate at the apex; *involucres* solitary, axillary, immersed, sub-cylindrical ; receptacles very long, filiform, much exserted. *Stipes* winged above or rarely naked. Hook. Sp. Filic., vol. 1, p. 124.

On trees at Natal. (Plant.)

139. *Trichomanes rigidum.* Sw. *Frond* 2-pinnate, ovate, acuminate, rigid ; *pinnules* linear-lanceolate, cuneate, sub-2-pinnatifid ; the ultimate *segments* sub-acute, simple or 2-fid; *rachis* wingless, or very narrowly margined ; *involucres* supra-axillary, sub-urceolato cylindrical, free; the mouth entire. Hook. Spec. Filic., vol. 1, p. 133.

Between fissures of rocks in shady places at Natal. (Drege.)

XIII. SCHIZAEACEÆ. Mart.

XLV. SCHIZÆA. SM. (2 Species.)

Schizæa pectinata. Sm. *Fronds* cæspitose, simple, filiform, channelled, stiff, leafless, smooth, bearing on their summit pectinate spikes, composed of fifteen one-sided pairs of appendages bearing the fructification. Schkuhr. Filic., tab. 136.

In sandy soil on the Cape flats, on the summit of Table Mountain, and in many more places within the colony. *v. v.* and *s.*

141. *Schizæa tenella.* Kaulf. *Fronds* simple, linear, slender, filiform, compressed, terminated by sub-erect spikes, containing eight pairs of fruit-bearing appendages. Kaulf. Enum. Filic., p. 50, tab. 1, f. 7.

Between rocks on the mountains of Hottentot's Holland. (Chamisso, Zeyher) ; in similar places near Genadendal. (Rev. C. R. Kölbing.) *v. s.*

XLVI. ANEMIA. SW. (1 Species.)

142. *Anemia Dregeana.* Kze. *Sterile fronds* pinnate, linear-oblong, membranaceous, *pinnæ* nearly sessile, obliquely-ovate, blunt, somewhat auricled, wedge-shaped at base,

slightly notched at the margin, smooth and glossy above, strigose along the veins below; *fertile frond* 3-partite, 2 of its partitions fruit-bearing, 3-pinnate; the third sterile one pinnate. *Stipes* and *rachises* hairy; *caudex* creeping, shaggy. Kze. Linnæa, vol. 10, p. 493. Suppl. to Schkuhr., tab. 20. Hook. Icon. Plant, vol. 3, tab. 236.

In moist shady places amongst rocks in the forests of Natal. (Drege, Gueinzius.) *v. s.*

XLVII. MOHRIA. SW. (1 Species.)

143. *Mohria thurifraga.* Sw. *Fronds* 2-pinnate, coriaceous, covered beneath with chaffy scales; *pinnæ* alternate, stalked; *pinnules* ovate; the upper fruit-bearing ones crenate; the barren ones deeply incised. *Caudex* creeping, paleaceous. *Adiantum caffrorum.* Thbg.

Common on the mountains of the Cape Colony, Kaffraria, and Natal. *v. v.* and *s.*

This fern, when bruised, is fragrant, and smells of *Benzoin* or *Olibanum.* In some parts of the colony, the dry fronds are pulverised, and with fat made into an ointment, which is cooling and serviceable in burns and scalds. The vernacular name of this plant is *Brand-boschjes.*

XIV. OSMUNDACEÆ.

XLVIII. OSMUNDA. SW. (1 Species.)

144. *Osmunda regalis.* Lin. *Fronds* 2-pinnate, smooth; *pinnæ* stalked, alternate, oblong-ovate, many-yoked; *pinnules* shortly petioled, unequally sided, and more or less auricled at base, oblong, slightly notched, blunt; *fertile panicle* 2-pinnate, placed at the extremity of the frond. Schkuhr. Icon. Filic., tab. 145.

On a cataract between the Omzamcaba and Omzamvoobo Rivers Natal. (Drege.)

Var. *Spectabilis.* Kze. *Sterile pinnules* elongated, thicker, obliquely truncate and inciso-crenate at base. *Osmunda spectabilis.* Willd. Spec. Plantar, vol 5, p. 98.

In shady places near rivulets, in the mountains of Hottentot's Holland, Swellendam, Tulbagh, Uitenhage, &c. (Eckl. & Zeyh.), at Natal. (Drege.) *v. s*

XLIX. TODEA. WILLD. (1 Species.)

145. *Todea africana.* Willd. *Fronds* 2-pinnate, oblong, erect, smooth, coriaceous 5-6-feet high; *pinnæ* opposite, shortly petioled, oblong-lanceolate, many-yoked, patent, the upper and lower ones being smaller by degrees; *pinnules* alternate, linear-lanceolate, cohering at base, blunt, crenate-serrate.

Stipes quadrangular, smooth. *Osmunda barbara.* Thb. Schkuhr. Icon. Filic., tab. 147.

In shady localities near rivulets, common all over the Cape colony and Natal. *v. v.* and *s.*

XV. MARATTIACEÆ. Sw. (1 Species.)

L. MARATTIA. SW. (1 Species.)

146. *Marattia salicifolia.* Schrad. *Fronds* 2-pinnate, subcoriaceous; *pinnæ* oblong-lanceolate, alternate or opposite, stalked, patent, erect, acuminated; *pinnules* subsessile, lanceolate, cuncate at base, sharp pointed, acutely inflexo serrate, the terminal larger one often pinnatifid or lobed; *partial rachises* margined or winged in the upper portion, smooth. *Synangia* elliptical, remote from the edge and from one another. *Caudex* short, creeping, paleaceous. Schlecht. Adumb. p. 11. Kunze Linnæa, vol. 10, p. 488. Suppl. to Schkuhr. Icon., p. 79, tab. 38.

In the forests of the Tzitsikamma and Natal. (Drege, Gueinzius, &c.) *v. s.*

XVI. OPHIOGLOSSEÆ. R. Br.

LI. OPHIOGLOSSUM. LIN. (4 Species.)

147. *Ophioglossum nudicaule.* Lin. fil. *Frond* sessile, elliptical or lanceolate-ovate, sheathing, mucronate, reticulated, placed near the middle of the *scape.* *Scape* short, slender 3-4-inches high, terminated by the linear, acuminated spike which bears the fructification; *rhizome* fibrous. *O lusitanicum.* Thbg. Flor. Cap *O capense.* Schlecht Adumb. p. 9. tab. 1, fig. 2. Kunze Suppl. to Schkuhr. Filic., p. 79, tab. 29, fig. 3.

On grassy hills and at ditches near the Olifant's River (Mundt), at Gamka River and between the Bushmen's and Koega Rivers, (Eckl. & Zeyher.) *v. s.*

148. *Ophioglossum Bergianum.* Schlecht. *Scape* slender, $1\frac{1}{2}$-2 inches high, naked; *radical leaves* linear, narrow; *spike* cylindrical, pointed; *rhizome* fascicled. Schlecht. Adumb., p. 10. Hook. Icon. Plant, vol. 3, tab. 263.

Amongst grasses at the base of Lion's Mountain. (Bergius Harvey, W. C. Faure); in turf near Kuil's River (June, 1845, Pappe.) *v. v.* and *s.*

149. *Ophioglossum reticulatum.* Lin. *Spike* arising from the stem; *frond* cordate-ovate, acute, loosely reticulated. Willd. Enum. Plant, p. 60.

Between grasses near the Umlaas River, Natal. (Dr. Krauss.)

150. *Ophioglossum costatum.* R. Br. *Spike* arising from the stem; *frond* lanceolate-oblong, one-nerved, reticulated. R. Br. Prodr. Flor. Nov. Holland, p. 163.

Found somewhere in the colony by Capt. Carmichael; special locality unknown. (Tulbagh ?)

XVII. LYCOPODIACEÆ. D. C.

LIII. LYCOPODIUM. LIN. (9 Species.)

151. *Lycopodium carolinianum.* Lin. *Leaves* lanceolate, sub-falcate, acuminate, one-sided; *stalks* erect, elongated, bearing one solitary cylindrical *spike*; *bracts* auricled, subcordate, patent, pointed. *Stem* creeping, branchy. *L. repens.* Schlecht, p. 5, tab. 14.

In wet sandy soil on the Lion's Mountain (Rev. Hesse); in Attaquaskloof, Swellendam (Mundt); at Hottentot's Holland, and Montagu's Pass (Eckl. & Zeyher.) *v. s.*

152. *Lycopodium cernuum.* Lin. *Leaves* awl-shaped, scattered, curved; *terminal spikes* sessile, nodding; *bracts* ovate, acuminate-subulate, appressed, membranaceous; serrato-ciliate. *Stem* very branchy. Schlecht. Adumb., p. 5.

Near the hot springs of the Goudine (Mundt), near Klip River, Swellendam, and at Natal. (Dr. Krauss.) *v. s.*

153. *Lycopodium pygmæum.* Kaulf. Annual. *Leaves* scattered, sessile, ovate or ovate-lanceolate, squarrose; *spikes* terminal, oblong, sessile, solitary; *bracts* ovate, acuminated. *Stem* erect, simple, or rarely branched. Kaulf. Enum., Filic., p. 9. Schlecht. Adumb., p. 6., tab. 3.

Between grasses on the Lion's Rump, in the mountains of Hottentot's Holland, and in Grootvadersbosch, Swellendam. *v. v.* and *s.*

154. *Lycopodium gnidioides.* Sw. *Leaves* sessile, subcoriaceous, imbricated, oblong-obtuse, quite entire; *spikes* long, hexagonal, confluent; *bracts* ovate, leaflike, slightly acuminated. *Stem* dichotomous, leafy. Schlecht. Adumb., p. 7, tab. 2.

Upon the trunks of forest trees in the division of George (Bergius., Mundt.); in Blockhouse Kloof, near Graham's Town (Dr. Atherstone); at Natal (Gueinzius.) *v. s.*

Var. *pinifolia.* *Leaves* densely imbricated, coriaceous, decurrent, glossy; *spikes* two inches long, sessile, standing in pairs; *branches* dichotomous, fastigiate, curved at the apex; *bracts* keeled. *Stem* erect, 10-12 inches high. *Lycopodium pinifolium.* Kaulf. Enum., p. 7.

In the fissures of rocks on the summit of Table Mountain (Bergius., Chamisso, Zeyher, etc.) *v. v.* and *s.*

155. *Lycopodium clavatum.* Lin. *Leaves* nerveless, squarose, incurved, hair-pointed; *spikes* in pairs, cylindrical, stalked; their *bracts* or scales ovate-acuminate, eroso-dentate. *Stem* creeping, long; *branches* ascending. Willd. Enum. Plant., vol. 5, p. 16. Schkuhr. Icon. Filic., tab. 162.

In damp, shady places on the mountains of Hottentot's Holland, and near Bethel, Kaffraria (Zeyher) *v. s.*

156. *Lycopodium verticillatum.* Lin. *Leaves* whorled, linear-lanceolate, acuminate, patent, quite entire, smooth. *Stem* dichotomous or twice 2-partite; *capsules* axillary. Willd. Sp. Plant., vol. 5, p. 48.

In shady localities in Makazan's country, Natal. (Plant.)

157. *Lycopodium rupestre.* Lin. *Leaves* scattered, imbricated, linear-lanceolate, ciliate, hair-pointed at the apex; *spikes* solitary, sessile, terminal, erect, quadrangular, *scales* keeled, 2-lobed at base; *capsules* kidney-shaped. *Stem* creeping, branchy. Willd. Enum. Plant., vol. 5, p. 30. Schkuhr. Icon. Filic., tab. 165.

Between rocks on the banks of the Omzamcaba River, Natal. (Drege. Plant) *v. s.*

158. *Lycopodium setaceum.* Hamilt. *Leaves* whorled, linear, bristly at top, curved; *capsules* axillary, reniform. *Stem* slender, dichotomously branched, creeping. Kze. Linnæa., vol. 18, p. 113

Parasitical on trees in the forests of Natal, between the Omfondi and Togela rivers. (Gueinzius.) *v. s.*

159. *Lycopodium Kraussianum.* Kze. *Leaves* remote, oblong, acuminated, obliquely cordate and auricled at base, scabrid, margined, ciliated; *stipules* sub-erect lanceolate-ovate, falcate, rounded at base. *Stem* creeping, branchy; *branches* rather erect, dichotomous. Kze. Linnæa., vol. 18, p. 114.

In the forests of the Tzitsikamma (Dr. Krauss.), near Chakaa's Kraal, Natal (Gueinzius.) *v s.*

LIV. PSILOTUM. SW. (1 Species.)

160. *Psilotum triquetrum.* Sw. *Stem* angular, smooth, dichotomously branched about its middle; *branches* 3-cornered, acuminate, fructiferous; *leaves* sessile, alternate, remote, acute, very remote; those subtending the fruit deeply 2-partite; *spores* kidney-shaped. *Bernhardia dichotoma.* Willd. Schkuhr., Icon. Filic., tab. 165, b. Hook. genera Filic.. tab. 87.

Parasitical on trees in the forests of Natal. (Gueinzius.) *v. s.*

APPENDIX.

DOUBTFUL AND DISCARDED SPECIES.

1. *Aspidium* (Polystichum?) *stramineum.* Kaulf. *Fronds* 2-pinnate; *pinnæ* oblong-trapeziform, mucronate, serrate, auricled at base, rather hairy below; *sori* scattered, placed near the margin; *rachis* and *stipes* very scaly. *K. Sprengel.* in Linn. Syst. Veget., vol. 4, p. 105.

2. *Aspidium* (Lastrea?) *oppositum.* Kaulf. *Fronds* 3-pinnate or supra-decompound, lower *pinnæ* opposite, 2-pinnatifid, smooth; their *pinnules* one-sided, oblong-lanceolate, decurrent, confluent at base; tertiary *inferior pinnæ* ovate-oblong, entire; *terminal ones* rather acute, sub-dentate. *Sori* solitary; *rachis* sparingly scaly. *Sprengel.* l. c., p. 108.

3. *Asplenium flexuosum.* Schrad. *Fronds* pinnate; *pinnæ* ovate-lanceolate, acute, pinnatifid; *segments* lanceolate-cuneate, truncate, 2-dentate at the apex; *lower ones* deeper incised; *uppermost* confluent; *rachis* flexuose, glabrous. *Schlecht.* Adumb., p. 29. *(A. discolor. Nob.?)*

Locality not recorded. (Rev. Mr. Hesse.)

4. *Pteris cuspidata.* Thbg. *Fronds* pinnate, smooth; *pinnæ* alternate on very short stalks, lanceolate, cuspidate, serrate, straight-veined. *Stipes* half-round, doubly channelled, glabrous, 12 inches high. Thbg. Flor. Cap., p. 732.

5. *Pteris tabularis.* Thbg. *Fronds* pinnate, glabrous; *pinnæ* alternate, sessile, approximate, lanceolate, veiny; *lower ones* short; *terminal pinnæ* 3-5 fid. *Stipes* half-round, channelled, smooth. *Caudex* clothed with long ferruginous scales. Thbg. Flor. Cap., p. 732.

In moist places on Table Mountain. (Thunberg.)

6. *Pteris* (Allosorus?) *involuta.* Sw. *Fronds* 2-pinnate, oblong-lanceolate; *pinnæ* opposite, oblong, short; *pinnules* alternate, adnate, subcordate-ovate, blunt; *terminal one* 3-lobed or hastate, all of them entire, subinvolute, glabrous. *Fructification* marginal, continuous. *Stipes* round, black-purple, glossy, sparingly paleaceous. Schlecht. Adumb., p. 46.

7. *Onychium capense.* Kaulf. This Fern had been mistaken for a South African plant by former botanists. It is, in fact, a native of Japan, and described as *Trichomanes japonicum* by Thunberg. *Onychium japonicum.* Kze.

8. *Dicksonia anthriscifolia.* Kaulf. *Fronds* 3-pinnate, ample spreading; *pinnæ* ovate-oblong, pinnatifid nearly to the costa; *segments* oval-oblong, obtuse, dentate, soriferous in the axils of the teeth; *rachis* glabrous; *costa* and *veins* slightly hairy. Hook. Spec. Filic., vol. 1, p. 79, tab. 27 B. Kze. Linnæa., vol. 10, p. 545. *Cheilanthes anthriscifolia* (Willd?)

Lonchitis anthriscifolia. Bory. (Perhaps identical with *Hypolepis anthriscifolia.* Presl.)

Locality unknown. (Bergius.)

9. *Adiantum thalictroides.* Willd. *Fronds* 3-4-pinnate; *upper pinnules* stalked, semi-orbicular, cuneate-subtruncate, slightly lobed; *lobes* emarginate, soriferous; *involucres* kidney-shaped. *Stipes* roundish, smooth, black-purple, glossy. Schlecht. Adumb., p. 53. (Probably a dwarfish variety of *A. æthiopicum.* Lin.)

On the north side of Table Mountain. (Bergius.)

10. *Adiantum rotundatum.* Kze. *Fronds* pinnate, linear-lanceolate, smooth; *pinnæ* alternate, stalked, approximate, transversely-oblong, subfalcate, blunt; *terminal ones* small, obovate, truncate at base; *upper edge* and apex inciso-lobate; *lobes* obtuse, toothed at the top; *fertile ones* incised; *involucres* large, reniform; the base of the glabrous *stipes* and the *rachis* chaffy. Hook. Spec. Filic., vol. 2, p. 53, Kze. Linnæa, vol. 10, p. 528.

Locality unknown.

11. *Polypodium argentatum.* Jacq. *Frond* 2-pinnatifid, smooth, silvery at the underside; *pinnæ* alternate, lanceolate, pinnate at the base; *segments* lance-shaped, subdentate, elongated. *Sori* clustered in the middle of the disk. *Sprengel.* Lin. System Vegetab., vol. 4, p. 56.

12. *Polypodium tomentosum.* Thouars. *Fronds* 2-pinnatifid and, as well as the *stipes*, shaggy; *pinnæ* alternate, lanceolate; *lobes* oval, blunt, subcrenate. *Sori* in one single row on each side of the midrib. Spreng. l. c., p. 59. (Could this be *Polypodium Bergianum.* Schlecht?)

13. *Vittaria* (Tænitis?) *acrostichoides.* Hook. and Grev., *Fronds* stipitate, coriaceous, lanceolate, blunt; *fertile ones* linear. *Sori* submarginal. Hook. and Grev. Icon. Filic., tab. 186. Kunze Linn., vol. 10, p. 528. (*Pteropsis angustifolia.* Desv.?)

Found somewhere in the colony; locality however, unknown. (Rev. Mr. Thom, Caledon?)

14. *Hymenophyllum flabellatum.* Labil. *Fronds* flaccid, curved, ovate or oblong, acuminate, pinnate; *pinnæ* sharp-pointed, pinnatifid; the *lower segments* subflabellate, all of them blunt or emarginate. *Involucres* terminal, nearly orbicular; *valves* entire. *Stipes* round, smooth. Hook. Spec. Filic., vol. 1, p. 111. Kaulfuss in Linnæa., vol. 6, p. 187.

15. *Lycopodium ambiguum.* Schrad. *Leaves* arranged in 6 or 8 rowe, scattered, linear-lanceolate, subfalcate, acute,

quite entire, imbricated, patent. *Stems* simple, ascending from the base. Schlecht. Adumb., p. 8.

Habitat not known. (Rev. Mr. Hesse.)

16. *Lycopodium depressum.* Sw. *Stem* branchy; *branches* very short; *leaves* in a double row, alternate, ovate, acute, obsoletely toothed, patent; *stipules* leaflike, ciliated. *Spikes* sessile, leafy, oblong. Schlecht. Adumb., p. 8. Spreng. Lin. Syst. Veget. vol. 4, p. 17.

In conclusion, we have to notice a very singular plant, which, for some time, had been mistaken for a Fern. We allude to the *Lomaria eriopus* of Kunze., mentioned in the Linnæa., vol. 13, p. 152, and vol. 18, p. 116. It does not belong, however, to the Filical tribe, but to the natural order of *Cycadeæ*, and has been named by Mr. Moore in honour of the late Dr. Stanger, Surveyor-General of Natal. Cf. Hooker's Jour. of Bot., and Kew Gard. Miscellany, v. 5, p. 228.

Stangeria paradoxa. T. Moore. (l. c.) *Stem* simple, erect, 6-8 inches high, without scars. *Frond* single, pinnate, coriaceous. *Stipes* stiff, smooth, 2 feet long, sprinkled with numerous minute dots, and clothed with white shag at its lower extremity. *Pinnæ* opposite, sessile, lanceolate, marginate, very veiny, obtuse, unequal at base and decurrent on the inferior side; *lowermost pinnæ* subpetiolate, patent, all of them slightly waved, reflexed, and obsoletely toothed at the edges; *midrib* stout, rigid, prominent on both surfaces; *veins* divergent, parallel, forked once or twice near the costa. *Rachis* doubly channelled at the upper extremity.

Flowers unisexual, without either calyx or corolla, and collected in stalked, terminal, resiniferous cones; *peduncle* round, furrowed, spirally twisted, tomentose. *Male cone* 3½ inches long and two inches thick, formed of numerous imbricated, rigid scales which bear on their lower or inner side innumerable, irregularly grouped *anthers* or one-celled pollen-cells which are longitudinally split. *Scales* broad, 3-angular, connate and appressed at base, blunt, serrato-crenate at the margin, smooth on the inner, densely clothed with thick fulcrous felt on the outer surface.

Female cone oblong-ovate, broad, 3 inches long, 4 inches in circumference. *Scales* like those of the male plant, but larger, concave within, saccate, and perforated on each sideof the base by a small roundish aperture or sinus, which is destined for the insertion of the ovules. Ripe fruit hitherto unknown.*

* The description of the female cone was drawn from an immature specimen. "I find it impossible," says Mr. Plant (who sent it from Natal) "to preserve the female cones if suffered to reach a larger size on the plant. The process of ripening goes on till the whole falls to pieces."

WE MUST FOLLOW THE FASHION.

A SKETCH "FOR WHOM IT MAY CONCERN."

FROM THE FRENCH.

"Good-bye, Leontine!"
"Do not forget us!"
"You will be sure to write?"
"And you will come to see us again?"

These farewells and hopes were addressed by several young girls belonging to the school of **** at St. Germains, near Paris, to a young companion on the point of leaving the institution. Leontine, already leaning on the arm of her father, turned to her friends standing in the porch and waved her hand to them, while the tears rolled down her cheeks. She tenderly pressed the hand of her governess, who stood near, and entered the coach which was waiting. Her father seated himself by her side, and the vehicle started to the railway station. An hour after, the travellers reached Paris, and were received at the entrance of a neat dwelling in the Rue Montaigne by an old family domestic, who wept on seeing the young lady, because she was "so like madame." Embracing her as almost a saintly being, she removed her shawl and bonnet, and with many endearing expressions conducted Leontine to the dining-room, where two covers were laid.

Dinner over, M. de Salve took his seat near the fire, for, though in April, the evening was chilly. He called his daughter near him and kissing her, regarded her with sorrowful and tender emotion. "My child," said he, "once more I have you near me! You return home to fill the place of your poor mother; and how great is the resemblance, —the same light hair, and hazel eyes like yours!"

And he looked from his child to the portrait of a lady suspended on the wall; it was of soft and graceful aspect, the mild endearing eyes seemed to win the esteem of the spectator. M. de Salve sighed, and after a pause, again broke silence. "We have lost her too soon, for you as well as for myself; I can never, though anxious above all things so to do, direct you as she would have done! However, my child, your mother's voice being absent, you must listen to the dictates of your heart and reason. To-morrow you will take the management of the household; you know my position; though occupied with important duties under the Minister of Finance, it is a post, like most others of a similar nature in the state, more honourable than profitable. The

small fortune I derived from your mother has been nearly consumed by sickness, the defalcation of a banker, and the assistance I have been obliged to render to some relations who were unfortunate. We have thus only the emoluments of my place to rely upon; and therefore, my dear child, you must acquire the art of management, so as to meet the necessities of Parisian life, and preserve to our house a respectable and honourable appearance, equally remote from luxury as from meanness." "Oh father! I will try; I will learn;" replied Leontine," and Marie Rose, our servant, will afford me great assistance." He resumed, "She is unquestionably both good and faithful; but it will be needful, dear girl, to acquire knowledge and judgment, that you may discern for yourself, and make, if it be possible, reflection supply the want of experience. In conclusion, my dear Leontine, when thinking of your duties, I have considered the things that will be more pleasing to you. Your little chamber is well arranged; in the wardrobe you will find dresses, mantles, and I know not what. These purchases I entrusted to a friend's wife, who I hope will have succeeded to your satisfaction."

Leontine kissed her father thankfully. He continued, "I shall provide you with 400 francs yearly for your toilette. Will that suffice?" "Oh! papa, can you doubt it!" "No certainly," he replied, "for I have no fear of yonr being unreasonable. You will find, also, some books in your room, and your mamma's piano in the saloon." "Oh papa! we shall be so happy together! I shall never regret the boarding-school, though our governess and my young companions were all so good, so kind to me." "By the bye," said M. de Salve, "you will meet again your friend, Bertha Dapremont, and see her often. Her mother has kindly offered to be your *chaperon*, so that you will have invitations. We frequent the same society, for, as you are aware, her husband is at the head of my department, under the minister, and Madame Dapremont is a most estimable lady." "And Bertha is so amiable! how happy I shall be to see her again!" "It is well, my child, you have thus some elements of enjoyment. With easy circumstances, good friends, and a taste for occupation, we need not desire more. For myself I am so well pleased to have you near me, I shall regret that I cannot see you often enough, for I am overwhelmed with duty." "But shall we not pass our evenings together papa?" "Often, but I dare not say always," he answered." "I will play to you in the evenings, if you would like it." "I desire nothing better; and, should you be willing, you shall commence to-night."

Leontine rose, and ran to the piano; the evening glided cheerfully by, and father and daughter slept happily, well pleased in the society of each other.

CHAPTER II.

Early next day, Bertha Dapremont called to see her friend; the visit was, however, a farewell one, for Bertha and her mother were leaving for the country, where they were going to pass three months; sea-bathing and a journey up the Rhine would complete their summer season. Still, Bertha had already formed her projects for the coming winter. "We will go everywhere together," said she to her friend; "we shall have the same invitations; and remember, Leontine, always the same toilette. We shall be considered sisters, and have so much amusement! With mamma one can always be happy, she is so kind and indulgent. You see, now, I have already made my preparations."

Leontine applauded in prospective, and in the midst of their many joyous plans the young girls parted, anxious for the approaching winter season, when they hoped again to meet.

Assisted by Marie Rose, Leontine took possession of her empire, made purchases, became acquainted with the prices of commodities, regulated the repasts, and arranged the work of the household. She made preserves, sweetmeats, and was sufficiently amused with her domestic duties, the difficulties of which were smoothed away by the counsel and experience of the old servant. Her father availed himself of Sundays, and such few intervals of leisure as were left from his avocations, to show her Paris, its churches, monuments, and museums; and the summer months passed tranquilly, leaving no impression, so calmly did the days glide by when with each other.

Winter returned with its train of foggy days and brilliant evenings; the birds of passage came back to the city, and Bertha's first visit was made to Leontine. Mademoiselle de Salve met her friend again with feelings of lively joy; for, independently of the affection which Bertha's sweet and amiable, though frivolous, nature had inspired, she had begun to find her life somwhat dull and monotonous. She scarcely saw her father, save at meals; for his administrative duties kept him either with the minister or at his office. The days appeared dull; the nights interminable, despite her domestic occupations, her piano, embroidery, and reading. M. de

Salvé saw this; his tenderness for his daughter he carried even to weakness, and in his anxiety to afford amusement to his only child, his hope and treasure, he encouraged more and more her intimacy with Bertha, and allowed her to accompany Madame Dapremont and her daughter to every *fête* to which they were invited.

At the beginning of winter these parties were occasional and chiefly with familiar acquaintances; but near the end of December M. de Salvé and his daughter, with the Dapremont family, received an invitation to a grand ball, given by one of the most distinguished ladies in Paris. It was to be a most stupendous affair, and the young friends met in secret conclave to deliberate upon the matter.

"What will you wear?" said Bertha to Leontine, "though, in the first place, what have you?"

"Nothing, except my school dress," answered the other.

"That in which you danced at mamma's *fête* on the lawn?" exclaimed her friend. "Oh dear! it is too countrified. I intend having a robe of rose tarlatan made with flounces, and trimmed with small silk fringe; it will be so beautiful! I have been looking well after myself, be assured."

These remarks made Leontine look very serious. "What ails you," asked Bertha, "that you are at once so thoughtful?"

"I was considering," replied the other, "that the flounces and fringe will double the price of the dress." "Yes, certainly," said Bertha, "but that is not of any consequence." "I have not much money," suggested Leontine, "and, at present, my purse is almost empty." "If that is all," answered Bertha, "never mind; Madame ****, of whom we will buy our dresses, to ensure having them of the same shade, will give you credit; she knows me well, and the dressmaker will not send in her bill until after new year. Come, now, would you make yourself ridiculous, my dear, by turning miser?"

Leontine hesitated. "We must follow the fashion," resumed Bertha, in a dictating tone; "'amiable simplicity' is no longer in vogue, and *now* it would be impossible to wear a dress without flounces; trimmings, too, and such things are indispensable. I will say more, jewels also are necessary: fashion insists that it shall be so, and to its dictates we must submit; for 'we must follow the fashion.'"

"But only think how great the expense will be,—dress, flowers, gloves, shoes, &c.," said Leontine.

"Eighty francs, perhaps, not more."

"That is enormous for a single evening."

"You cannot go at less expense," replied Bertha laughing, and she commenced singing,

"A robe so light
Of purest white,
A shepherdess' hat, with woodland flowers."

"Have you not your white school frock? Your hair in its native luxuriance, with a ribbon and a little flower, will surely suffice. Oh! how charming you will appear! you will create quite a sensation among the most fashionable and elegant society in Paris! But come, you must decide which you will have,—the garb of the shepherdess or the rose tarlatan."

"Ah! well," answered Leontine, half laughing, "we will buy the dress, if it must be so."

"My maid is here, and shall go with us; come along," cried Bertha.

Leontine's presentiment proved true, and the expense for that single evening nearly equalled a fourth part of her yearly allowance.

It is difficult to resist the tide of fashion at eighteen, when the scales have not yet fallen from our eyes, when the voice of reason is silenced by the busy realities of life and its distractions, when giddy self-love still hold us fascinated, when experience is naught, and reflection has not yet asserted authority over us. Such was the position of Leontine. On entering the fashionable world, she believed it a duty to bow to its decrees, and follow its customs. She submitted blindly to the lessons of Bertha, who appeared to her "all the law and the prophets," believing herself compelled to incur the excessive expenses of dress, of which her friend set the example. After the ball came new year's visits. Leontine had dresses, but they were unseasonable. Bertha persuaded her that it would be necessary to add flounces to her robe of black taffeta, to purchase an embroidered cloth mantle of an elegance quite aristocratic, and to make such alterations in her black velvet bonnet that its price was doubled. A second ball took place in January; Leontine would have worn her rose dress again, but her friend pleaded so eloquently in favour of one of white taffeta that she gained the cause. It was impossible to appear twice in the same society in the same dress; something new was imperative. In short, "one must follow the fashion." Leontine humbly submitted; the robe of white taffeta reappeared at a large dancing party given by Madame Dapremont, but new flowers, ribbons, and blond had effected an entire change in its appearance. Lent, the time of penitence, came, and should have been one of

economy too, for the evenings were passed round the tea table; but Bertha had a passion for jewels, and innoculated her friend with the same feeling. Leontine, on leaving school, had received a pretty bracelet; Bertha decided that she must have a brooch to correspond; no one could do without an ornament so indispensable. Leontine was very anxious to have one, it would be so pretty for fastening a collar or neck-ribbon. A beautiful one was offered, but very dear; happily, however, jewellers are most liberal gentlemen, and willing to give credit to any one they know.

Winter passed and summer returned. Farewell to balls and evening parties. Still Bertha remained in town, and in her company, promenades, small meetings, and other amusements afforded a thousand pretexts for expenses. Leontine was passive, and without great remorse. A straw hat costs so little, she argued to herself; summer things are bought for almost nothing; washing was the only consideration, and white dresses could be so often renewed, which for summer were sufficient, and would always look new. She, however, allowed herself another expense. Bertha often quizzed her upon the *solemn* air of her apartment, filled, as it was, with ancient and heavy furniture, suggesting that it should be modernized. Leontine introduced some pretty Persian curtains; mahogany sofas and old high-backed chairs hid their somewhat ugly forms under coverlets of Persian. Bertha made her a present of a beautiful stand, which was directly covered with nameless trifles, giving to her chamber altogethr quite a modern aspect. Gardeners supplied flowers, and Leontine occupied her time and exhausted her funds in making baskets, cushions, and knick-knacks; but she had the consolation of having a chamber crowded with trifles certainly, but pretty, original, elegant, and, above all, so entirely *à-là-mode.*

However, in the midst of these delights of dress and gaiety, Leontine appeared occasionally rather sorrowful, for she felt herself going at a great rate towards a sufficiently ugly precipice. Debts increased; her allowance was consumed in advance, and pressed by the desire to pay off the urgent, though still civil, claims of some creditors, she ventured to borrow from the household funds to liquidate her private expenses. This lapse caused her uneasiness, but not much disquietude, as, for some time, she restored each month from her personal allowance, with exactitude, to the household cash-box as much as she had taken away. But we cannot swerve from the straight path of rectitude without unpleasant and sorrowful feelings, and the preoccupation of her debts,

the little excuses to which she was insensibly constrained, plunged Leontine into a secret grief, the more bitter that she could not confide her motives to any one, and drew back from the only door of relief that stood open—a frank avowal to her father.

He, however, perceived nothing; he possessed that absence to, and ignorance of, material things so usual with studious men; he scarcely noticed his daughter's dress, and, feeling implicit confidence in her, would merely say, occasionally, "You are very gay my child." Leontine would smile, but spoke not; and her kind father, seeing her usually clothed in white or black, had no suspicion of the variety of her wardrobe, and necessarily of the expenses entailed, in consequence of the uniformity of her appearance at home.

Madame Dapremont ought perhaps to have had a clearer perception, but the good lady held it a principle not to meddle with the affairs of others, and considered that if Leontine incurred large expenses it was with her father's consent, and that their finances offered no obstruction. Thus, everything concurred to force the young girl to the brink of a precipice: the confidence of her father, the example of her friend, and the commands of fashion. True, there was the voice of conscience, but to that she gave little heed, saying to herself, "never mind, I can arrange all that; next winter I will spend very little, pay my debts, and bring everything straight again."

And she believed this sincerely. But how strive against the impression that "we must follow the fashion." Leontine possessed not sufficient decision of character to resist Bertha, when she, having the first chillness of winter to assist her arguments, demonstrated clearly as the day, that the little elegant and aristocratic mantle of last winter had become quite shabby, and that she would be acting most economically by replacing it with a striped Persian shawl, warm, serviceable, and that would last for some years. The shawl cost three hundred francs, but then it was so requisite, so elegant, too. Leontine could not resist; she bought it, and for the first time in her life, when her father inquired the cost, told him a falsehood:—"Only a hundred francs, papa," she replied.

The purchase and the lie, the folly and the wickedness, weighed like lead on the heart of the guilty one. Her conscience would suggest, "There is still time; tell all to your father, and pursue this path no longer;" but she heeded not its salutary monition, and believed that the misery she endured, and the tears she secretly shed, were a sufficient expiation

for her errors. The prospects for the future did not lessen her anguish. A young gentleman who pursued the same occupation as M. de Salvé had noticed Leontine. Her amiability, and modest and distinguished manners, had so pleased him, that, through a mutual friend, he had made overtures for the hand of Leontine, which M. de Salvé entertained most willingly; for though M. Victor Thellier possessed no fortune, and supported his mother and an aged grandmother, his talents opened to him a prosperous career, and his character guaranteed beforehand the happiness of his wife.

Leontine was not insensible to this offer; but her preoccupation with money considerations threw a veil over the most spontaneous feelings and brilliant hours of the life of the young girl. The acquisition of the shawl had utterly destroyed the equilibrium of her financial matters, and the vendor evinced impatience for payment. Leontine trembled at his visits, fearing that his importunity might discover to her father the secret of her extravagance; and, in the month of January, having in hand three hundred francs for paying the rent, she gave this sum to the shawl merchant.

From that moment all repose left her; she feared everything: the demands of the landlord; the remarks of the housekeeper; the smallest accident might reveal to her father the fatal truth. From that moment she found herself led into a path of continual and inevitable falsehood. Her father asked, "Have you paid the rent?" Composing her features, she replied "Yes, papa." "Where is the receipt?" "I have left it in my room," was the reply, and feigning to go and seek it, lying both in word and gesture, she left the room, covered with burning blushes that alone lied not. This position became one of fearful torture and agony. The fear of discovery kept Leontine in a state of the most cruel suspense; her breast beat ceaselessly with fear,—the fear of shame. The return of her father no longer was a cause of joy; she was anxious only to see, by the expression of his eyes, if he had learned anything, and reassured a moment, relapsed at once to grief. The bell ringing made her tremble; Marie Rose coming into the room unexpectedly, or the arrival of a letter, caused terror. She experienced all the misery of guilt, and did not possess the virtue which redeems error. Sincerity of confession guarantees sincerity of repentance, but this requires strength of mind; it was solely from weakness that Leontine had offended.

The landlord, to whom she had not in any way explained the delay, wrote several letters for payment of the rent; at

first civil, afterwards urgent. By a chance, which the continual absence of M. de Salvé will explain, these letters fell into the hands of Leontine, who read and burnt them, without giving a single reply.

One evening, in the last days of February, she was alone in her chamber, seated before her desk, looking over various notes, the silent witnesses of her many follies. She summed up the total of her accounts, and, fearful for her, found they amounted to two thousand francs. The base of this formidable pyramid was the landlord's debt; then came the dressmaker's bill, swelled up with lace trimmings and buttons,—all increasing the amount; the note of the upholsterer showed that if the Persian curtains cost but little, it was otherwise with the workmanship and finishing; what an array of names! cornices, fastenings, rings, hooks, and pulleys; making a total of one hundred and fifty francs for frippery. The jeweler was more modest—a brooch, sixty francs, gold enamel, representing a snake, also a small bracelet of oxidised silver, eighty francs. Then came in review the smaller sums, bills from the sempstress, bootmaker, laundress, mercer, and *tutti quanti*, in all attaining to the astounding figures one thousand nine hundred and seventy francs. Leontine's pen had dropped from her hands; she had placed her head between them, and was weeping with a discouragement bordering on despair. "What shall I do?" said she; "speak to Bertha, and borrow some money of her? But Bertha is so frivolous and sarcastic, I dare not! Tell all to my father? oh! God, rather die! And Victor, too, what will he say?" . . .

A noise aroused her from these sad musings; the chamber door opened slowly. "Leontine," said a well-known voice, but with a severity of tone that was not its custom to assume. She rose up suddenly; her father was before her; they walked into the saloon together. M. de Salvé appeared much agitated; his lips and cheeks were of a deathly pallor, and his hands, which trembled convulsively, held a paper. "Can you explain this, Leontine?" said he, after a time, offering the paper to his daughter. She threw a rapid glance upon it; it was a letter from the director in M. de Salvé's department, cautioning him that a creditor, claiming of him three hundred francs for rent due, demanded arrest on his salary, for payment. The director requested some explanation, at the same time stating that unless M. de Salvé paid the debt immediately, he should be compelled by the regulations to do justice to the landlord's demand. "Once more," cried M. de Salvé, "explain to me how it comes that I am

thus insulted? Have I not always given you funds? Have you not paid the rent? Answer me!"

Leontine could not speak; she fell on her knees before her father, bending her head to the ground. He raised her impatiently; "Speak! I command you!"

She could not obey. Trembling like a poplar shaken by the storm, pale, as if death had struck her, she gazed wildly around. The father's love overcame his just resentment, and gently taking his daughter's hand, said to her kindly, "I ask but one word from you, Leontine; I pardon you. Speak!"

That voice, so full of sweetness, penetrated her very soul; she looked around for refuge, and throwing herself on her father's neck, hid her face upon his shoulder, saying, in a low voice, "I have deceived you father; pardon me! I will tell you all!"

She looked at him most anxiously; he raised the poor humiliated head, and speaking with extreme mildness, resumed, "I do pardon you, my child; you have caused me much misery to-day; but you did not know what you were doing. I pardon you entirely, be assured."

He sat down overwhelmed. Leontine knelt near him, and there sincerely and undisguisedly made a complete avowal of her faults. M. de Salvé, still very pale, listened calmly, and an experienced eye might have marked upon his countenance, the traces of a disease that had already touched the source of life. He examined the papers Leontine had given to him, and ejaculated, "Thank heaven! to-morrow all shall be paid! I have reserved two thousand francs, which were destined for your marriage portion; this sum shall be employed in acquitting these engagements."

Leontine wept, kissed her father's hands, and exclaimed, "I know not where I shall go . . . . this fatal selfishness, the desire to appear like others, to be equally elegant in society, where each one seeks to eclipse the other,—it is thus I have lost sight of that which is truly good! Oh, father! I can never be consoled for the grief that I have caused you this day!"

M. de Salvé, on the point of making a reply, was prevented by the presence of a third party. Marie Rose entered to introduce M. Victor Thellier. His manner was serious, and the agitation of M. de Salvé and the tears of his daughter, moved him. "I am indiscreet," he said in a low voice, "perhaps I had better retire?"

Leontine stopped him by a sign, and going towards him, said:—

"You are aware, sir, of the circumstances that afflict us?"

"It is true," he replied with embarrassment, "the director has not kept them altogether from me, and I come on his behalf to ask from M. de Salvé some explanation, which he feels assured will be perfectly satisfactory."

"I will, myself, give it," said Leontine, with singular emotion.

And immediately, in a few distinct and rapid words, she avowed her faults, without circumlocution or deceit, screening Bertha, and accusing only herself. Her father could not stop her, and Victor listened with respect, mixed with grief. "I alone am to blame," said she in conclusion; "speak plainly the truth, nor endeavour to exculpate me, should any one dare to blame my father."

"My child," said M. de Salvé, with choked utterance, "come near to me!"

She flew towards him, regarding him with mortal anxiety. The pallor had gone; his cheeks, forehead, and eyes appeared to be bursting; his looks were fixed, and the lips moved, but no sound issued from them. Victor rang:—"A foot bath very hot," said he to Marie Rose. "A doctor, in the name of Heaven," screamed Leontine.

Victor ran off, returning quickly with a celebrated physician. He examined the sick man with that vigilant and penetrating eye, which seeks, in the dying, a hope of life, and his expression became very grave. "Send for leeches, Mademoiselle," he said, "and have mustard poultices prepared." He again felt the pulse of the patient, partly opened the the powerless eye-lids, and observed,—"Has your father, within a short time, experienced any strong excitement?"

"Yes, sir," replied Leontine, in suffocating accents.

"Then all is explained."

"Do you fear the result?" interposed Victor, in a low voice.

"Everything!"

The night passed in a succession of alarms, which seemed to justify the sentence that science had pronounced. Leontine, raised beyond herself by the strength of her repentance, aided by her admirable care, the medicaments so energetically adopted; life, almost extinct, flickering like the flame of an expiring lamp, remained suspended, and after twenty-four hours of suffering, the physician gave some little hope. This hope was but slightly sustained during the multiplied phases of sickness. However, M. de Salvé escaped the peril. He passed long months confined to his room and bed; and when, at last, complete convalescence was declared, his health was so shaken, and his mental faculties so weakened by the terrible shock he had undergone, that he was obliged to resign his appointment, and ask for retirement.

Leontine submitted to this decree, which entirely changed her lot. She resolved to renounce marriage, consecrating her life to her infirm father,—infirm from her misdeeds,—and nobly she kept the resolution. M. de Salvé retired to the country with his daughter, who lived having no consolation save that afforded by a rigid performance of her duties; and though her future was loneliness and poverty, still she enjoyed a peace of conscience, purified by the fire of trial and tears of repentance. Every one sympathized with her. Still, she was more happy than in those days of luxury and misery, of *fêtes* and anguish, when, under an appearance of gaiety, and with borrowed riches, she hid at the bottom of her heart an unacknowledged fault, a continuous fear, and an accumulating remorse. Every one compassionated her, seeing her conducting her father step by step, and replying patiently and gently to the incoherent questions of the poor old man. In times past, perhaps, she was envied as she walked with Bertha, gay, brilliant and adorned. However, if to-day less happy, she is at least at peace; for she has returned to the paths of rectitude and truth.

Cape Town. H. E. L.

MACHIAVEL.

We shall almost be considered as doing a little in the way of the old character of the "Devil's Advocate" to venture, even in these days of philosophy and toleration, to say a few good-natured words about the individual whose well-known name appears above. Thirty years ago, one of the most brilliant of Mr. Macaulay's essays (we suppose that others, as well as ourselves, find the great historian's new title difficult of use) was devoted to an attempt to protect the memory of the Italian patriot from the anathema which all modern society seemed to have pronounced against him. Whatever the fortunes of Machiavel when living, Machiavel's memory had certainly no experience of that warning of sacred writ, "Woe unto you when all men speak well of you!" And even the potent influences of the *Edinburgh Review*, we suspect, achieved little with the public mind to remove those impressions under which English society at least, had, during two centuries, "coined an epithet for a knave out of his surname,—from his Christian name, a synonyme for Satan."

The history of Machiavel seems, in brief, to have been this. An active and able servant of the Florentine Government, during nearly fourteen years, from the twenty-ninth

to the forty-third year of his age, he was in 1512 utterly stricken down by the consequences of the return of the Medici, assisted by the Emperor Maximilian and Pope Julius. As an influential member of the Government that was overthrown, and as himself peculiarly zealous for the freedom of Italy from the trans-Alpine influences which chiefly wrought that overthrow, Machiavel, of course, was a rival too near the throne not to be obnoxious. He was placed under restraint in various ways; of course deprived of his offices, and reduced, if we may lay full stress on some expressions in a letter from him not discovered until early in the present century, to a state of even personal destitution. Supposed to be engaged in a conspiracy against the new *regime*, in 1513, he was put to the torture, and nearly lost his life. Soon after occurred the accession of Leo X to the Papacy, and to the authority of this liberal-minded sovereign with the then Government of Florence, Machiavel owed his liberty and pardon. During about eight years he seems to have been employed chiefly in writing the works through which his name has become so well known to us. Having afterwards, again through Leo's influence, been employed in various capacities, chiefly, as in his earlier life, on embassies or distant missions, he died in 1527.

This brief statement of the chief proceedings of his life will lead us to look carefully at our author's position during the time in which he was employed in his literary pursuits,—the period between 1513 and 1521. To his mind the times were eventful enough. The moving principle of his more active life had been to regain for his native country the place which he believed that she had, to so great an extent, already lost. He was a patriotic Italian. He longed to see "barbarian" influences, as he thought them,—and it must be remembered that his childhood had been of the days of Lorenzo, the Magnificent—banished from Italy. To his mind, moulded in the time when all Europe, except his own country, was barbarous, barbarism seemed now to threaten that country, by the means of a mercenary soldiery; and he felt that her civilization had been more speedy in its growth, than it was firm in its foundations. Grand, indeed, had been the apparent maturity to which Italian civilization early attained. Let us refer, for a moment, to the essayist's picture of what Italy had been, in consequence of her peculiar position and circumstances, in the times immediately preceding those of which we write:—

"Thus liberty, partially indeed and transiently, revisited Italy; and with liberty came commerce and empire, science and taste, all the

comforts and all the ornaments of life. The Crusades, from which the inhabitants of other countries gained nothing but relics and wounds, brought to the rising commonwealths of the Adriatic and Tyrrhene seas a large increase of wealth, dominion, and knowledge. The moral and the geographical position of those commonwealths enabled them to profit alike by the barbarism of the West and by the civilization of the East. Italian ships covered every sea; Italian factories rose on every shore; the tables of Italian money-changers were set in every city; manufactures flourished; banks were established; the operations of the commercial machine were facilitated by many useful and beautiful inventions. We doubt whether any country of Europe, our own excepted, have at the present time reached to so high a point of wealth and civilization as some parts of Italy had attained four hundred years ago. Historians rarely descend to those details from which alone the real state of a community can be collected. Hence posterity is too often deceived by the vague hyperboles of poets and rhetoricians, who mistake the splendour of a court for the happiness of a people. Fortunately, John Villani has given us an ample and precise account of the state of Florence in the early part of the fourteenth century. The revenue of the republic amounted to three hundred thousand florins; a sum which, allowing for the deterioration of the precious metals, was at least equivalent to six hundred thousand pounds sterling: a larger sum than England and Ireland, two centuries ago, yielded annually to Elizabeth. The manufacture of wool alone employed two hundred factories and thirty thousand workmen. The cloth annually produced sold, at an average, for twelve hundred thousand florins: a sum fully equal, in exchangeable value, to two millions and a half of our money. Four hundred thousand florins were annually coined. Eighty banks conducted the commercial operations, not of Florence only, but of all Europe. The transactions of these establishments were sometimes of a magnitude which may surprise even the cotemporaries of the Barings and the Rothschilds. Two houses advanced to Edward the Third of England upwards of three hundred thousand marks, at a time when the mark contained more silver than fifty shillings of the present day, and when the value of silver was more than quadruple of what it now is. The city and its environs contained a hundred and seventy thousand inhabitants. In the various schools about ten thousand children were taught to read; twelve hundred studied arithmetic; six hundred received a learned education. The progress of elegant literature and the fine arts was proportioned to the public prosperity."

Then, with other vivid pictures of the extent and nature of this progress, we have the following comparison with countries which have since so much outstripped Italy in the race of civilization:—

"We can scarcely persuade ourselves that we are reading of times in which the annals of England and France present us only with a frightful spectacle of poverty, barbarity and ignorance. From the oppressions of illiterate masters, and the sufferings of a degraded peasantry, it is delightful to turn to the opulent and the enlightened states of Italy, to the vast and magnificent cities, the ports, the arsenals, the villas, the museums, the libraries, the marts filled with every article of comfort or luxury, the factories swarming with artizans, the Appenines covered with rich cultivation to their very summits, the Po wafting the harvests of Lombardy to the granaries of Venice, and carrying back the silks of Bengal and the furs of Siberia to the palaces of Milan."

The difference between the state of civilization, on either side of the Alps, in the fifteenth and the opening of the sixteenth century is familiar to every reader. And at this time the "physical power" in his country seemed likely, to Machiavel's eye, to fall wholly into the hands of half-civilized mercenaries from beyond these mountain barriers. He had before earnestly wished, with his party, the democratic friends of Soderini, to withstand despotism in Florence. He had failed in this; but the increasing evil which he now saw fast advancing, in his enlightened view threw the terrors of an Italian despotism far into the shade. Better a despotism, and especially a despotism of men who loved learning and the arts, than that his country should be overrun by German and Spanish soldiers. See the conclusion of his *Prince*, addressed to the younger Lorenzo:—

"If, therefore, your illustrious family be inclined to follow the examples of those excellent persons who redeemed their countries, it is necessary, as a true fundamental of all great enterprizes, to *provide yourselves with forces of your own subjects;* for you cannot have more faithful or better soldiers than they; and though all of them be good, yet altogether, they will be much better when they find themselves not only commanded, but preferred and caressed by a Prince of their own. It is necessary, therefore, to be furnished with these forces before you can be able, with Italian virtue, to vindicate your country from the oppression of strangers." . . .

"This opportunity, therefore, is by no means to be slipped that Italy, after so long expectation, may see some hopes of deliverance. Nor can it be expressed with what joy, with what impatience of revenge, with what fidelity, with what compassion, with what tears, such a champion would be received into all the provinces that have suffered by those barbarous inundations. What gates would be shut against him? What people would deny him obedience? What malice would oppose him? What true Italian would refuse to follow him? There is not, there is not any body but abhors this barbarous domination. *Let your illustrious family then address itself to the work with as much courage and confidence as just enterprises are undertaken, that under their energies our country may be recovered, and under their conduct Petrarch's prophecy may be fulfilled, who has promised that,*

> *'Virtu contr 'al furore*
> *Prendera l'arme, et fia il combatter corto*
> *Che l'antico valore*
> *Ne 'gl' Italici curr' non e ancor morto.'*

Macaulay has shown how the armed hunter, in the course of civilization, changes into the less warlike husbandman, who yet, as our Cape burgher of old, formed a powerful element in the defence of his country, and even in her military operations, if these were not continued for too long a time. But Italy had attained, before other European countries, the great change produced by the rapid extension of commerce and manufactures. A country could have only

hired defenders, in which the capacity for manly exertion had been lost, and where the desk and loom were shrines of Mammon, the worshippers at which were not permitted to hold any divided allegiance. It was besides, according to the existing modes of warfare, an almost impossible thing for men to follow peaceful professions, and yet to prepare themselves to any extent for a soldier's duty. "Men, covered with iron from head to foot, armed with ponderous lances, and mounted on horses of the largest breed, were considered as having the strength of an army. The infantry was regarded as comparatively worthless, and was neglected till it became really so." * Such ideas as these were evidently unfavourable to the formation of a lightly equipped and armed militia for the defence of the country, if necessary, and in any case for the preservation of those manly habits, whose absence, in case of need, is destruction. Machiavel was among the earliest who urged the possibility of training active bodies of infantry, armed with the pike and sword (for he appears to have had little faith in gunpowder) to resist cavalry forces. His seven books on the art of war have the same patriotic purpose in view which now, happily, influences so many who lead in society in our small colony, fast outgrowing as we even are, the period when the husbandman is to be supposed to hold the chief custody of the public weapons. His object was to reclaim Italy for the Italians, and to render his countrymen fit to defend themselves. His great idea was the formation of a militia, "to be sent home again to their own houses when peace was concluded." Eminently and honourably *Machiavellian* are thus Sir George Grey, Major Hope, Mr. Porter, and our other leaders of volunteers at the Cape, in the exertions they have made within the last two years. Happily, as we hope, they have begun earlier than did the Italian patriot; and theirs is a less chance of failure.

Italy has scarcely ever, since the time of which we write, ceased to be held by foreign troops. The people sometimes cry for *liberty;* but who can foresee what a people, who have been unarmed with aught else but poison or the stiletto for three hundred years, would do with liberty if they got it? There is a close connexion between the manly sports and customs of Englishmen, and such exploits as the Balaklava charge, such endurances as India has lately brought to our view, and even the bearing of English freemen in the cabinet, the courts of justice, and the halls of legislation. The connexion lies in those virtues which spring from a manly self-

* Macaulay.—Ess., p. 35.

reliance. Where this is not, why talk of liberty? "What concord hath Christ with Belial?"

We are of course understood to be no apologists for many of the doctrines of Machiavel's writings. But who shall apply too rigid a test to the political morality of an Italian statesman of the times of the Borgias? It is certainly shocking to the enlightened conscience to find a learned and patriotic, probably, in many respects, an estimable man, even describe without abhorence such principles as are contained in the eighteenth chapter of the *Prince*, as to the sort of obligation that exists on a sovereign, to "keep his promise." The facts that such views are addressed to one of the first princes of Italy, a member of its greatest family of that or any later time,—that the book (it was not printed during the author's life, and not until more than ten years after it was written) appeared under the express sanction of Pope Clement VII,—that it was not until the christianity and civilization of other countries were startled at their nature, that its contents seemed to surprise the taste of the Italian people, or to shock the authorities of the Roman Church;—these sufficiently indicate the general corruption of morals throughout Italy.* They do not alter the relative position of this one man, great in spite of his faults, towards the fallen race around him. With such a picture before us of a great, or, we will even say, a good man, on the Roman side of the Alps, we may per-

* Although not printed during Machiavel's lifetime, the *Prince* seems to have been circulated among his friends; and it was certainly rather the subject of praise among them than of condemnation. (See the opinion of Biagio Buonaccorsi, given by Roscoe in his life of Leo X, ch. xxi, note 46.) Pope Clement, however much he may have differed from his ecclesiastical successors, who placed Machiavel on the *Index Expurgatorius*, certainly intended to show his peculiar approbation and patronage. To the Pope's mind, it was a compliment deserving to be handed to posterity, that the *Prince* had been an offering made to one of the members of the great family with which he claimed kindred, by a countryman of rich genius and learning. An Englishman, Cardinal Pole, was perhaps the first who publicly denounced the sentiments of the book—sentiments which no more shocked Clement than they did most of his corrupt countrymen. It professed, said Pole, to be the work of a man; but one needed only to begin to read it to recognize the finger of Satan. (Roscoe, Leo X, ch. xxi, note 44.) We would venture here to say that in Dugald Stewart's Dissertation, prefixed to the *Encyclopædia Britannica*, the view taken of Machiavel, as if the founder of the unscrupulous policy which bears his name, is hardly just. What if the *Prince* was a favorite book of Charles V, and was called the Bible of Catharine de Medicis? (Diss., p. 23.) It proves that Machiavel was not wrong in his delineation of those principles which he thought inseparable from a tyranny. The "school" of politicians to which the Dissertation gives his name existed ages before him, and was referable to a worse than human parentage. Nor was Machiavel even the first of those who believed mankind around them to be too corrupt to have any other master than the "fallen one" himself: any other Government than one peculiarly of his making.

haps, in some degree, appreciate the strange workings of the ingenuous mind of that Saxon monk, who reverently trod the way to the Eternal City as a worshipper; and returned to thrust back all Italian influence from those northern climes in which the protestant civilization of our day has found its genial home.

Perhaps this little sketch on a subject not at all inviting in its appearance, may have interested a few readers of the *Magazine*. We feel ourselves performing a duty to the infirmities and deficiencies of our common nature, when we place, in its most favourable light, the character of one who unquestionably has been among the "best abused" of our race, and who, in our opinion, did not deserve the very disagreeable immortality he has attained. He is now chiefly condemned for the sentiments of his *Prince*. We are much mistaken if, at the time, he was nearly so much in disrepute for them, as among some of his countrymen for having courted the restored and powerful family of the Medici. For this course we have defended him. That he wrote the book, or rather letter, in good faith, and that it was an acceptable gift, and the surest way of attaining to the favour which he desired to use for patriotic objects, we believe. Indeed, the result showed it; for Leo X. virtually caused him to be restored, during the last few years of his life, to positions similar to those he had formerly occupied; and he was until his death, however unsuccessfully, using his new influences for the political ends we have described.

Here would end the remarks we intended to make, but for a view which it strikes us to be desirable to bear in mind, as in some measure accounting for the ill name Machiavel bears in Christendom. He was disliked by the priests. There can be no doubt that his opinions, generally, were not of a character likely to induce him to agree with the Roman priesthood. Indeed his very hopes for Italian nationality were inconsistent with the all-embracing spiritual power the "Church" had in view. He mentions in one of his works, incidentally, a conversation with a French Cardinal, who had expressed an opinion unfavourable to the knowledge of the Italians of the art of war. "I replied," he says, "that the French had as little skill in matters of state; for if they had had the least policy in the world, they would never have suffered the Church to come to that height and elevation."

The priesthood and their opinions could greatly influence the subsequent European reputation of any man. We may judge what Luther would have been to us, handed down only by the opinions of the clergy with whom he contended.

Luther, happily and deservedly, had contemporary defenders. Without them, the unfortunate transaction with the Landgrave of Hesse, for instance, might have been made, by his adversaries, the chief element in the judgment of his character by posterity.

Machiavel's odium with the priesthood gave rise to his name being used by an ingenious writer to pass off as his production a clever attack on the clergy, which is printed in some English editions of his works, but which is unquestionably spurious. Among others, in the folio edition first published in London, in 1674, there appears a translation of a letter alleged to have been written by him to his friend Zanobi Buondelmonti, "in vindication of himself and his writings," in which he defends himself from the charge of impiety, as having slighted and vilified the Church, by alleging that he had never denied Christianity, "but had laid the blame on the Church of Rome, not alone for all the misgovernment of Christendom, but even for the deprivation and almost total destruction of Christian religion itself in this province." The letter purports to be dated in 1537, when Machiavel was already dead ten years. It also mentions the *Prince* as if previously published, when it is well known that the work was not printed in the author's lifetime. It contains, too, a curious internal evidence of its falsehood, by an allusion to Calvin, which, with another passage regarding Luther, we think it worth while to quote, as showing the unknown writer's appreciation of the peculiar part which each of these great men performed in the work of religious reformation. The letter purports, as we have said, to be written in 1537. Calvin, it was true, had then a few years before, or rather only a year before, fled from France to Geneva; but Machiavel died in 1527 when Calvin was only 18 years old. The writer, in the passage we are quoting, proceeds, after having denied that any "priesthood" or "clergy" had been instituted by the Saviour or the apostolical teachers:—

"But this will I prophesie, before I conclude, that if princes shall perform this business by halves, and leave any root of this clergy or priestcraft, as it now is, in the ground: or if that famous reformer, fled some years since out of Picardy to Geneva, who is of so great renown for learning and parts, and who promises to perfect a reformation, shall not, in his model, wholly extirpate this sort of men; then I say that I must foretell that as well the magistrate as this workman will find themselves deceived in their expectation, and that the least *fibra* of this plant will overrun again the whole vineyard of the Lord, and turn to a diffusive papacy in every diocese, perhaps in every parish: so that God n His mercy inspire them to cut out the core of the ulcer, and the bag of this imposture, that it may never rankle or fester any more, nor

break out hereafter, to diffuse new corruption and putrefaction through the Body of Christ, which is His Holy Church, nor to vitiate and infect the true feeling and good order of Government."

Regarding Luther and his efforts, this personator of our author says:—

"Next, I beseech you to observe, in reading that Holy Book, what ground there is for enjoining fish to be eaten (or at least flesh to be abstained from) for one-third part of the year, by which they put the poor to great hardship, who, not having purses to buy wholesome fish, are subjected to all the diseases and miseries incident to a bad and unhealthful diet; while the rich, and chiefly themselves and their cardinals, exceed Lucullus in their luxury of *oysters*, *turbots*, *tender crabs*, and *carpioni*, brought some hundreds of miles to feed their gluttony upon these penitential days of abstinence from *beef* and *pork*. It may be it will lye in the way of those who observe this, to inquire what St. Paul means when he says 'That in the latter days some shall depart from the faith, forbidding to marry and commanding to abstain from meats, which God hath ordained to be received with thanksgiving;' but all these things, and many other abuses brought in by these preventors of Christianity, will, I hope, be ere long inquired into by some of the disciples of that bold Friar, who the very same year in which I prophesied that the scourge of the Church was not far off, began to thunder against their indulgencies, and since hath questioned many tenets long received and imposed on the world."

One passage more is of a peculiar character, conveying strong doctrine, for that day, on the important subject of toleration, whether we consider it as really having been originally written in Italian or even if we conceive the whole letter to be an English invention:—

"I shall never make any difficulty in calling him Antichrist who shall use the least persecution against any one differing in faith from himself, whether the person so dissenting be heretic, Jew, or Mahometan."

These extracts are, at all events, interesting as showing the views which Machiavel was supposed to have entertained by persons living nearer his own time than ourselves, and for which many held his name in abhorrence. F.

KAFIRS AND KAFIRLAND—A SETTLER'S STORY.

CHAPTER III.

A NIGHT SURPRISE.

We were safe What happiness in those words; what joy in the sense of their full realisation! None but those who have almost miraculously escaped from imminent and awful peril can at all imagine the delicious sensation of relief we experienced on finding ourselves safely lodged within the well fortified walls of Fort W. It was some days, however, before the effects of that

fearful night were altogether removed from my wife's susceptible imagination. Often would the recollection of its dread terrors cast a shadow over her mind, and cause her to cling with a shuddering horror to me, as though we were still in the midst of that memorable cutting. Happily, this feeling gradually wore off; and, in the perfect security of our present position, Annie, in about ten days, had quite recovered her usual state of contentment and unclouded happiness. As for myself, being *a man*, I was of course little affected after the circumstances were over; and, in fact, had it not been for the presence of such dear encumbrances, the whole affair would have been looked upon by me as a remarkably good adventure.

The morning after our arrival I was greatly surprised, on going outside the fort, to find outspanned, just beneath the guns of the so-called battery,—two wagons very much resembling those I had left in such a hurried manner the day before. My surprise was still greater when, on approaching these vehicles, I was greeted by a most vigorous salutation; and, to my astonishment, I found that these really were my own wagons. It appeared that the Totties had not only met with no molestation on the road, but had seen neither sign nor trace of a hostile Kafir.

I was somewhat agreeably astonished at this news, having resigned myself to the loss of the wagons, with all they contained. The course of events seemed to indicate the existence of a plot against our personal safety, though who the plotters were, and what the motives might be, strong enough to induce natives to forego the prospect of rich plunder, for the mere possession or destruction of our persons, was to me a matter of utter mystery, and, as such, I was willing to let it remain. The war, meanwhile, continued unabated through the surrounding country, and I saw no immediate prospect of our continuing to journey homeward.

After I had been a fortnight in the fort, the monotonous do-nothing life I was forced to lead began to be intolerably irksome, and I longed for a little of the excitement enjoyed by those who were taking an active part in the prevailing scrimmage.

Among the many natives—spies and hangers-on—who were connected with the fort, was one who had attached himself most devotedly to me, without any apparent reason, except that I had once given him a suit of old clothes, with other odds and ends, for which gifts he had been very thankful. This fellow was, at first sight, of most unprepossessing appearance, being of huge and ungainly stature, showing, however, an immense display of brawn and muscle; and having his face seamed almost throughout its entire length, by an unsightly and repulsive scar, for which he had been dubbed by the regiment "Scarface." What his origin had been I had never fully ascertained, being a point on which he was particularly close and uncommunicative. I squeezed out of him, though, that he was not a Fingo, but a Kafir, and had, in his youth, suffered great hardships through the cruelty of friends and

kindred. He had evidently now no home, and had been connected with the fort for some years.

This man evinced his gratitude and devotion in many and amusing ways. Often, when our boy was playing outside his room, Scarface would come up in what he meant to be a very gentle and soft manner; and just as we might fancy an elephant pawing a mouse, he would lay his hands on Ted, and lift him on his shoulder, in which exalted position the boy would be paced round and round the quadrangle till tired. Again, one morning very early, I found him squatted outside the door, keeping guard over a large basket of mushrooms, of his own collection, which he said the young captains would be sure to prig, if left unprotected. If ever I wanted a messenger, or required help, Scarface was always ready to be my man; in short, he proved himself to be a laborious and faithful attendant.

Just when we had been two weeks in the fort, intelligence was brought by spies that a large gathering of Kafirs would take place at a spot nine miles distant, in three days from that time. Immediately, on receiving this information, an expedition was set on foot, for the purpose of dispersing and routing this body of the enemy; and all the civilians in the garrison, of whom there were many, volunteered their services; indeed I should be the only one, not military, left behind, if I remained. This was just the kind of interlude I wanted, and I forthwith determined to go with the rest, and share the dangers and honours of the expedition.

On hinting this intention to my wife, I met, as I had feared, with the most determined and wife-like opposition. "What *can* you want with more excitement? Surely you've had sufficient adventure for any mortal man. You must have forgotten that night we came here I have'nt, though. Now, Owen, *do* promise me that you won't go: I'm sure I'll follow you if you do. Need you care what people say? am not I your wife, and haven't I more right to you than anyone else? Oh, Owen, husband! remember that night, and how near we were being separated then for ever, and don't run the risk again."

And, with her eyes full of tears, she clung to me closely, and such powerful pleading made me perforce promise that I would not immediately determine upon going to the fray. I, however, changed my tactics.

The next morning I was sitting in Captain Wycroft's room, which was divided from ours by a passage, reading some papers he had managed to receive from Graham's Town, when I happened to hear the following conversation between the Captain and Lieut. Casson, who were standing near the outer doorway:—

"I say, Wycroft, is Evanson going?"

"No, he says his wife won't let him,—a nice excuse; but I fancy he's grown funky since that celebrated night of his."

"So you really think he doesn't relish the prospect of another brush?"

"No, he prefers staying at home with his dearies."

"Ah, well I pity him." The two gentlemen here marched off.

One might naturally suppose I was exceedingly irate at being thus calumniated; but, on the contrary, I sat quite unmoved for five minutes longer; and then walked, with a very unconcerned air, into our own room, where my wife still sat in the position in which I had left her, near the open window, half an hour before. I saw, by her scarlet face, and the quick indignant movement of her needle, that she had heard her husband traduced, and was not quite so untouched as myself. After a few minutes I aroused her, by saying:—

"Well, Annie, I must decide about this expedition, now or never. I am almost determined to go"

"Well, dear, I've been thinking over the matter. Are you really sure there's no danger?"

"Oh dear, no: we're going to enfilade singly through the deep defile."

"Why, what ever does that mean? Please remember I'm not a soldier."

"Well, Annie, you asked me if there was any danger: how can there be when we enfilade singly?"

"Oh, when you do that, there's no danger; then you'll promise me to keep at the back?"

"I always intended."

And so I gained the point by a little stratagem, the aid of Wycroft and Casson, and the use of cloudy words; and thus my trusting and innocent wife had been duped and mystified by her own husband. "Ridiculous!" cries stiff Mrs. Propriety, whose husband is a model of candour and discretion "Shameful!" says the newly-wedded bride, in the fresh happiness of her new life. "Oh horrid!" simpers the sentimental miss, indulging in her romantic dreams of devoted husbands and connubial bliss. "Capital!" say I, in self-laudation; and may every husband, in a like fix, discover as easy a way of getting out of it.

The Kafir gathering, which was to be the object of our attack, had been arranged by the enemy with the utmost secrecy, and it was only through there being *one* traitor in their camp that we had been made acquainted with the circumstance. Our expedition was likewise carried out with the strictest secrecy,—its real object being known to only the officers and a few of the civilians. The rendezvous of the natives was distant about ten miles from Fort W.; but, from the almost inaccessible and extremely rugged nature of the country intervening, and of the place itself, the distance was rendered equal to double the length through a fair locality. The enemy would muster, we were told, nearly fifteen hundred, among whom several notable chiefs were expected to be present.

The expected day at last arrived; and about dusk, after a most affectionate farewell from Annie, coupled with the usual entreaties that I would not expose myself to any serious dangers, we all started on our adventurous journey. The force consisted of 250 infantry, with about 50 civilians. The offered aid of the latter had

been wisely accepted by the judicious authorities of Fort W., though it was not quite in accordance with the strict letter of official routine and red-tapeism. Cavalry would have been utterly useless in the country we were going to traverse.

The moon shone brightly, being nearly full; and, for the first eight miles of our journey, we passed through scenery of a wildly beautiful character, heightened, as it was, by the mystic charm which our southern moonlight always imparts to the face of nature, a kind of weirdlike beauty, which has always had a peculiar fascination to me, in the distance; and around us we could see the almost unnatural outline of rugged mountains soaring away into the dimness of night, while beneath might be discerned gloomy ravines, and long and apparently bottomless valleys, save where the lengthened glitter of a silver line came quivering through the deceptive haze, and told us that a mountain rivulet had there its course.

And so, with plenty of pleasant company, we trudged on very agreeably, over hill and through dale, chatting, joking, and wonderingly surmising what would be the result of our night's encounter. When we had proceeded about eight miles in this way, we came to a spot from which the fires of the enemy were distinctly visible; and, borne on the wind, could be heard the shouts and yells of their war dances and songs. Another mile and a half across a flattish table land, diversified with clumps of bush and trees, brought us to the top of a steep descent, on the other side of which rose the hill which we were about to attack. I had better here describe more fully the topography of the position the Kafirs had taken up.

The spot selected by our black friends, for their place of meeting, had been chosen with that acuteness and sagacity which forms a prominent feature in the native character. It was what is termed, in colonial parlance, a "neck," but, in plain English, was a high and precipitous hill, surrounded, on three sides, by the circuitous windings of a deep and rapidly-flowing river; on the other side it was fringed by forest. To gain the hill we should, of course, have to cross the river, which, however, we expected to do with little difficulty.

We were now opposite to our foes, and distant from them about a mile, as the crow flies. Their forms we could distinctly see, in the lurid light of the night, engaged in their terrific war dance, while the prolonged and intensified chorus of their songs rang in our ears with a deafening clang. For about five minutes we all halted, and gazed on the strange and unearthly scene before us. The Kafirs seemed more like a ring of devils or fiends than anything else; and certainly I doubt whether a nearer or better representation of the popular conception of the lower regions could be found in this world.

As the object of our visit to these beings was of a more hostile nature than merely to look at them, we were soon advancing; and, as we were now within sight of the natives, a considerable degree of caution had to be used. Slowly and steadily we went down the hill, which, fortunately, overshadowed us, the moon being behind

us. Carefully and assiduously we took advantage of the shelter afforded by the groups of bushes, and speedily found ourselves on the bank of the river, and hidden from the enemy's sight by the hill itself.

About ten minutes was spent in looking for a fordable place, which, when found, presented no great facilities; and, for once, we had to adopt the native fashion, when rivers are deep and swollen, and cross hand in hand, forming a chain facing the river. By this means we all crossed safe, though the water was frequently up to the breast, and drenched clothes were an unavoidable result.

And now, being on the enemy's ground, we had to separate according to the plan already decided on. We still, however, could hear that the natives were yet dancing; and, as the intention was to surprise them when at rest, we delayed dividing till the sounds of their revelry ceased. The effect produced by the simultaneous tramp of so large a body of men was tremendous,—the ground absolutely trembling beneath us. Any one who has witnessed, at a short distance, a Kafir dance, will readily comprehend this.

The dancing having ceased, and all being comparatively still, we moved up the hill,—the regulars spreading themselves round the river-ward side, and the civilians taking the line of the forest. With the latter, of course, my lot was cast, and, speaking in whispers we proceeded upward in an oblique direction, so as to meet the bush. As there might be stray natives lurking about, we kept concealed as much as possible, taking cover under every available bush or clump of grass. The hill was very steep, and the ascent, consequently, very fatiguing, if the excitement of the affair had allowed of such feelings. We could not be quite certain of the result, our numbers being very disproportionate,—yet little doubt was really entertained but that our sable foes would be scattered to the winds.

We had ascended about half way up the hill, and were skirting a long row of bushes and trees, when, to our bewilderment, there rose, close to our ears, a yell like that of a thousand demons; and out of the bush, and on every side, sprung forth a multitude of Kafirs, armed cap-a-pie, that is, according to native fashion, and immediately a perfect shower of assegais was hurled at us, while the whiz of a dozen bullets was proof that the enemy was in possession of more deadly weapons than we had anticipated. Our attack had been evidently expected, or our approach observed, and the aggressors were now the aggressed. All attempt at united resistance was quite impossible,—we being scattered at some distance from each other, and then almost immediately separated by natives. We had therefore each to look out for himself, and flight was the only apparent course,—it being quite impossible that a few disunited men could disperse several hundred natives. I therefore turned my back, and proceeded downward toward the river again as quick as prudence would allow, for Kafirs were springing about in all directions. When I was just in sight of the river, I turned my head, and there, close behind us, were three natives, brandishing their spears in a most triumphant manner, as if sure of their prize.

I had one charge in my gun, and the two pistols,—the former sent one of the Kafirs down like a stone, but the others continued to advance more menacing than ever. An assegai, hurled by one of them, hit my arm, and caused me to drop the pistol I was on the point of firing. The other I tried to aim with my left hand, but it missed fire, having got damp in crossing the river. Matters looked now very unpleasant, and I was feeling rather uncomfortable, thinking with the rapidity which thought assumes at such moments, of the anxious face I had left but that evening; when, suddenly, a weapon from some unseen hand, hit one of the natives in the breast, and down he dropped: the other not liking, I suppose, to be unsupported, took to his heels. Immediately there emerged from behind, a Kafir who I instinctively felt must be the one from whose friendly hand I had so opportunely received assistance. My astonishment was unbounded when, on hurrying to me, he proved to be my old friend Scarface. But no time was allowed for explanations, for my ally, pointing towards the river, ejaculated "See," and, looking that way, I saw a large body of Kafirs approaching towards us. Whether we were seen or not I could not tell. Scarface seized hold of my arm, dragging me a few paces, and then saying "Come," ran towards the river, but in another direction from that where the enemy was to be seen.

The bed of the river was, as usual, skirted on each side with a thick belt of bush, and into this we soon plunged, and having once gained this cover, were comparatively secure. But Scarface still continued to advance with a celerity which certainly proved that he was thoroughly acquainted with the locality. Beneath the dense foliage of the trees it was quite dark, and I found the path anything but agreeable,—now breaking my nose against an unseen tree, then sprawling across a decayed stump, or nearly falling over the steep bank, of three or four feet, that overhung the gurgling river below, while every minute I had to extricate myself from the assiduous embraces of the thorns and briers which choked the forest; and thus we proceeded, startling now and then a drowsy buck, too somniferous to join the moonlight rambles in which its kind delights, and awaking with our unwonted tread, the slumbering denizens of the branches overhead.

After we had advanced in this way about a mile, Scarface suddenly stopped, and, whispering me an entreaty to do likewise, I stood and listened for the cause of this stoppage. Presently the tramp of feet was heard, and the voices of apparently three or four people became audible. I caught a few words as they passed our hiding place.

"The truth now—is he dead?"

"He was struck by the assegai."

"Yes, but did he fall?"

"I saw ———."

No more than this I could hear, neither could anything be seen through the branches; but I felt almost certain that the voice of the interrogator was that of a white man, and very much resembling

For ah, it rarely smileth,
  But wears a constant frown;
Reflecting all the blackness
  Of its gloomy face cast down.
But when 'tis past and over,
  Earth only seems more bright;
And beams with purer beauty,—
  The fresh and sunny light.
Yet sometimes when the maiden
  Has used her choicest wiles,
The cloud is ta'en a captive,
  And decks itself in smiles,
In colours all irradient,
  In silver, and in gold,
It seems a floating rainbow,
  In massive grandeur roll'd.
And sometimes, too, its sternness
  Will lessen and relent;
And tender showers of pity,
  In teardrops down are sent;
While Nature, glad and thankful
  At such a joyous sight,
Re-decks her parched verdure,
  In colours new and bright,
And on the cloud still moveth,
  Thro' ocean mirror'd skies;
A shadow and a blessing,—
  A thing of smiles and sighs;
Till, in the far horizon,
  It sinks and disappears,—
Sinks with its fitful humours,
  Its laughter, and its tears.

Such are the clouds of nature;
  'Mid ocean skies upborne,—
Legions of marshall'd armies,
  By battling whirlwinds torn;
Rich argosies of Heav'n,
  Ploughing their waveless way;
Dust from the wings of angels,
  Caught by a sunbeam's ray,—
Long lines of foaming breakers,
  Dashing up sunlit spray,
Against the shore that severs
  The night from waning day.

And can we not discover,
  At mem'ry's backward glance,
Some tokens of a shadow,
  On stormy life's expanse?
Are there not times of darkness,
  When life no brightness hath,
And bleak and bare, and cheerless,
  Appears its barren path?
But faint not, drooping mortal,
  The day is coming fast;

Already, in the future,
The hopeful mornbeam's cast.
Soon shall your shatter'd spirit
Its wonted strength renew;
And peace, and times of pleasures
Again come full in view. N. H.

THE JEWS IN HOLLAND.

TRANSLATED FROM THE FRENCH OF ALPHONSE ESQUIROS.

BY H. HALL, ESQ., R.E.D.

CHAPTER IV.

Driven out of Spain, the Israelites embarked from all points of the Peninsula for Italy, Morocco, Turkey, and the coasts of the Levant. A fleet of twenty sail carried many of these wandering families to Algeria, where, in the town of Oran, their descendants are found to the present day. But the greatest number directed their footsteps towards Portugal, which offered to them a climate similar to that of Spain, almost the same language, and a certain conformity of manners and customs. The Jews had enjoyed in the old Lusitania, for many years, the right of asylum. Some of them had risen, in the midst of the calm tranquillity of a peaceable government, to a very high social position. They had, besides, rendered considerable services to the country in disseminating the first rudiments of philosophy, botany, medicine, and geography. They had introduced the study of the sacred language; they had assisted the Portuguese in their discovery of the East Indies. In spite, however, of these claims to gratitude, the King of Portugal would not consent to receive the fugitive Jews except on very hard conditions. They had to pay on each head a sum of money, for which they were allowed to remain in the country eight months. This term expired, the King agreed to furnish them with vessels to carry them, at their own expense, to any part of the world to which they wished to go. Those who did not leave at the end of the time decreed had to remain in a state of slavery. The captains of the vessels charged to transport the Jews did not hesitate to act in the most brutal manner towards them and the females of their families; so that it seemed as if the day of their miseries only commenced when they had quitted the soil of Spain. The Castilian Jews, who, either from poverty or some other cause, had not quitted Portugal on the fixed day were seized as slaves.

The King took their children by force, and baptized them; and having a project for planting colonies on the lately discovered coasts of Africa, and especially on the Island of St. Thomas, he sent these children there in the hope that being isolated from the influence of their relations, and married afterwards to the inhabitants of the island, they would become good Christians.

The accession of Emanuel to the throne of Portugal, in 1495, appeared at length to ameliorate the condition of the Spanish Jews; the new King set at liberty those whom his predecessor had condemned to slavery.

The hopes, however, that the Hebrews had founded on this happy commencement were doomed to be grievously disappointed. A question of marriage, and the influence of Spain changed, all at once, the policy of Emanuel. In December, 1496, a decree was issued, ordering all Jews and Moors, who would not change their religion, to leave Portugal. This measure included not only the Spanish Jews, but also all the Israelitish families established, from time immemorial, on the soil of Lusitania. A day was fixed for their departure; after that day every Jew remaining on Portuguese ground was to lose his liberty. A delay of three months was accorded to the proscribed. The three months were elapsed, the time of execution was come, and the Jews prepared themselves, with a firm resignation, to quit the land that they were accustomed to look on as their second country. Emmanuel then began to think seriously on the fate of this population, who had been the light of his kingdom; the forced banishment of so many rich and enlightened men would leave a great void in his little kingdom. The king wished to retain a part at least of this race, whom he was, through his own fault, losing. He ordered that all Jewish children, below fourteen years, should be detained by force, and instructed in the mysteries of the Christian faith. Such an edict could not be executed without giving rise to harrowing scenes. In an excess of rage and despair parents were seen first killing their children by throwing them into wells, and casting themselves after them. The destinies of Spain and Portugal have indeed changed since that time. These two, then the most powerful states under the sun, have seen the decadence of their marine, their commerce, and their political influence. The greater part of Castilian and Portuguese historians refer this decline to the expulsion of the Jews. In depriving ourselves, say they, of these crowds of useful and industrious subjects, Spain and Portugal, by a suicidal policy, have placed themselves in a position not to

be able to gather in that rich harvest that their discoveries in the Indies and the new world offered to them.

The emigrant Jews who embarked at that time for different countries, suffered in their journey most severe hardships. Some of the vessels were so overloaded that they foundered at sea, and the unfortunates on board were lost. Others were shipwrecked on desert coasts, where the unhappy exiles perished either by cold or hunger. How is it possible not to be interested in the fate of a race whose history is only one long martyrology. The Jewish people were at that time, on this earth, the personification of the law of personal freedom violated, of the right of liberty of conscience, either unacknowledged or outraged. That which astonishes us most on the part of the modern Israelites, in the midst of such cruel trials, is their unshakable (ineffaceable) constancy in their religious faith. Their firm attachment to the law of Moses under the rod of persecution, contrasts most forcibly with the frequent apostacies of their forefathers, while they lived under the government of their kings or their judges. Robbed and plundered, wandering on the face of the globe, their destiny was but the more rooted in them through all their sufferings. This is, perhaps, the answer to the question which M. da Costa asks in his work on Israel,—How is it that my people continue to be a people, after having lost all the necessary elements of national existence? A living witness of the unity of the Deity in the ages of antiquity, this people sustained and supported itself by a trust in the tenets of its faith, and by the very hate which the rest of the human race appeared to have vowed against it. The Spanish and Portuguese Jews carried from the Peninsula into the rest of the world their intellectual development and their industry.[1] In Italy, the printing press, which had just commenced its influence, fell into their hands, and contributed largely to the movement of the reformation, which had just commenced, by those magnificent editions of the sacred scripture in Hebrew character which have come down to us as monuments of typography. Others sought and obtained new sources of prosperity in commerce.

Originally, the Hebrews were not a commercial people. They were a race of shepherds: Israel lived under a tent. The transformation of the Jewish people into a mercantile community is one of the most singular examples of the change that circumstances can operate on the inclinations of a race. It is only since their expulsion from Judea that the Hebrews have given themselves up to business. Many causes have contributed to impress them with this new

character, which has now, in the course of time, become as it were more or less indelible. Declared almost everywhere incapable of holding landed property, the modern Jews could not devote themselves to farming or agriculture. Living under the laws, strictly speaking, of absolute governments, deprived of that security which is the foundation of durable establishments, they could not become an industrial people. The only path open to them was that of commerce. The profession of a merchant was, in the middle ages, held in contempt in many parts of Europe, whence it came that it was abandoned to the Jews. When we now consider it, we can easily see how absurd and unjust this disdain was. The development of commerce aids, in the history of society, the development of the arts, sciences, and navigation. The modern Jews have, in this respect, been the instruments of the material and moral progress of the European nations. At a period when the system of international communication in Europe was still undeveloped, the Jewish merchants accomplished an historic mission. Banished from France in 1318, by Philip the Tall, the Jews took refuge in Lombardy, and there gave to merchants letters of credit on persons in France to whom they had entrusted their wealth; these letters were duly accredited. The admirable invention of bills of exchange, says D'Alembert, arose out of the bosom of despair. Thanks to this economical mechanism: commerce can now shun brute force, and maintain itself throughout the world.

The Jews, it is true, are accused, during the middle ages, of having—to use a modern expression—put the screw, in many instances, on the Christian community. M. da Costa assigns for this selfish conduct of the modern Jews many causes, which should be well considered; the contempt of the higher classes for practical financiers,—a contempt which made nearly all banking operations fall into the hands of the Jews; the degrading position inflicted on the Pariahs of the West, which gave them cause to consider themselves as strangers dwelling in the land of the Gentiles and to treat all Christians as enemies. "Commerce," he says, "at that time, in the position in which the Israelites were placed, assumed more the degrading position of petty traffic, and financial speculations degenerated into usury." The leprosy of usury was, to speak plainly, the moral plague which had constituted the old and besetting sin of the race. The enormous rate of interest demanded by the Jews in the middle ages cannot be defended. Their exclusion from all public trust and from every honourable career, their life continually menaced, their property and means of subsistence, without defence against

injustice and oppression;—all these things can perhaps explain why the Jews employed, without scruple, the only arms which were left in their hands. Must we be astonished if, to a great nation, they opposed artifice and trick; if they pitted against the law of the most strong, the most profound finesse and calculation; if, in a word, they opposed the power of gold against that of cold steel? These abuses, besides, cannot efface the real services rendered by the Jews, both theoretically and practically, in the business of both government and every-day life. In the feudal ages, commerce was, as it were, dependent on the existing military institutions, and the uncertainty and unfixedness of the times gave rise to a system in which the rate of interest degenerated into extortion. But it must not be forgotten that in these times, and even in this condemnable form, the operations of Jewish financiers opened, nevertheless, one of the grandest arteries of economic circulation,—namely, credit.

THE CAPE OF GOOD HOPE HORTICULTURAL AND FLORICULTURAL SOCIETY.

PERIODICALS like the *Cape Monthly* and *Eastern Province Magazine* are capable of affording most important assistance to societies established for the advancement of science or art. Something more than the casual notice of the newspaper is needed to keep such institutions as the Agricultural and Floricultural continually before the public. The newspaper article is too short-lived to do all that is required; the magazine is the only publication in which a permanent record can be kept of the operations of the societies alluded to, and others of the same kind.

The Agricultural Society, aware of this, has taken care, thanks to one of its most zealous and able supporters, to announce itself, chronicle its proceedings, and expound its views in these pages. I now avail myself of the privilege to write a very brief account of what has been done, and what is being done, by the Horticultural and Floricultural Society.

It is scarcely necessary for me to preface my remarks by stating the objects which the society is intended to secure, nor need I occupy any amount of space in describing the advantages which have been secured by Horticultural and Floricultural Societies in England, and over Europe generally These are all sufficiently well understood. It is admitted on all sides that there is no place in the whole world where such a Society was more required than at the Cape of Good Hope.

The two exhibitions that have been held prove, beyond doubt, that the Society already established is capable of effecting a great amount of good, if its efforts are rightly directed by those whose scientific knowledge make them competent to point the way. The chief work must in the future be done by them. The public has shown that it is prepared to give its support, and it will be the fault of the Botanists, the Floriculturists, and Horticulturists of the Cape if the society is not ultimately successful.

If we turn for a moment to the history and working of Floricultural and Horticultural Societies in England we shall easily understand what a large amount of good we may yet realize by means of ours. In the mother country there is not a county, and scarcely a parish, without a similar Society, and the effects can be traced from the magnificent collection of rare exotics in the establishments of nurserymen, the conservatories of the peer and the squire, down to the garden plots of the humble cotter. The exhibitions are invaluable to all classes of the community, as well to those who buy as to those who grow and sell. In England the exhibitors may be classed as follows:—

First. The nurseryman, who collects rare plants from various portions of the globe, and who produces new varieties. The exhibition to him is a medium for bringing his rarities under the eye of the public. The *second* is the wealthy amateur grower, who, regardless of expense, gratifics his taste by the purchase and culture of all that is rare and beautiful. The *third* is the cottier and the market gardener, who grow the mealiest and finest flavoured potatoes, the largest drumheads, the best shaped carrots, and the longest cucumbers. To all three classes, exhibitions are of immense value. The nurseryman, as I have before said, finds it the readiest medium for bringing new varieties of plants, flowers, &c., before the public; the amateur is enabled to contrast the merits of competitors, and to judge who is most entitled to patronage; the successful market-gardener earns distinction that is to him a source of pecuniary profit. There are obviously, besides this, a host of other advantages, many of which accrue to the general public. Increased production lessens prices. The old story of the two blades of grass being made to grow where one only grew before comes in—if not exactly as blades of grass—certainly in the shape of potatoes, pumpkins, drumheads, and other productions, all too good and too serviceable to be overlooked. I have said nothing of fruits, because my remarks are sufficiently general to be applied to all that is exhibited on such occasions.

Perhaps as much good has been effected for the cotter as for any other class of exhibitor. By the cotter, I mean not exactly the man who grows to sell, but he who spends his little leisure in raising vegetables for his family's use, and whose love of order and beauty is fostered and exhibited by the carefully trained woodbine, the luxuriant and gorgeous hollihock, the monthly rose, and the modest daisy which adorn his patch.

I need not here enter upon the question whether the cultivation of flowers produces a hallowing influence upon the dispositions of mankind, or whether it is alone the evidence of a lovable nature. Philosophy may be left to decide between cause and effect, but we cannot fail to observe that it is not flower-loving cotters who supply inmates for the gaol and the workhouse. The idle and shoeless urchins vagabondizing in the ruts and ditches of the highways are not reared amidst the sweet-scented blossoms of a cotter's cultivated garden plot.

Whilst all these considerations prevail with the unscientific supporters of Horticultural and Floricultural Societies, the truly scientific take still higher grounds, and explain to us the purposes for which the plants, herbs, seeds, and flowers, springing up everywhere around us, were designed by an all-wise and bountiful Providence.

At the Cape, as yet, there has been nothing done in the way of classification; and it appears to me that it must still be some time before the nursery-man, the amateur, and the cotter will be distinguished, each in his class, at our exhibitions.

The Society, originated last year, held its first exhibition in February. The Committee, of which the Hon. Rawson W. Rawson, Esq., Colonial Secretary, is the chairman, felt, like all other committees having a new project before them, that the first requirement was money. Subscriptions were commenced, and prizes offered. His Excellency the Governor and Lady Grey consented to become the patrons of the Society, and offered a silver cup, as a prize, for the best collection of fruits. The other prizes were offered by the Committee out of the funds promised by subscribers, and the chances of fees chargeable for admission to the periodical exhibitions. There appeared but little difficulty about the funds; but it cost the Committee a great deal of consideration how to attract, at the first exhibition, a display of flowers, fruits, and vegetables sufficient to gratify the public. They felt that if the first exhibition should turn out a failure in this respect, there was little hope that the Horticultural and Floricultural

Society would be established. In England, none but the producer can exhibit for a prize. This, no doubt, is the proper thing, but, from all that could be ascertained, if this was insisted on here, there would be but a poor display of either flowers, fruits, or vegetables on the tables. It was therefore considered better that no restriction should be insisted on, and the prizes were open for competition to all the world. The result justified the decision. For the choicest and most beautiful plants, it is true, we were chiefly indebted to the Commissioners of the Botanic Garden, who, through their superintendent, Mr. James McGibbon, greatly added to the attractiveness of the display,—whilst they threw open their Garden for the exhibition and enlarged the receipts by a vote of ten pounds. To Mr. McGibbon we were indebted for the arrangement of our prize list, for valuable suggestions, and a considerable amount of assistance in the arrangement of the tents, &c. But, in addition to this, some very fine and choice exotics were sent under the head "of flowers" by the nurserymen and amateur growers. I will not venture on any mention of names now, lest I overlook some one; and there was not one who contributed to the first show to whom the Society is not under lasting obligations.

On the whole, this exhibition was completely successful;—that is to say, it found favour with the public, and left the Society a good balance in hand.

After this, the Committee met, and debated how future operations should be carried on. Amongst other things, it was resolved that the second exhibition should take place in September. Arrangements were made accordingly; but at a meeting, held early in August, the Committee were informed that, owing to the lateness of the season, an exhibition in September would be a failure. It was thought better to postpone it to November: this was done. There is a great amount of difficulty in fixing upon the best seasons for holding exhibitions. The setting in of a south-easter spoils the best-arranged plans; but, taking it for all in all, although the 11th of November was somewhat too late for a great many things, the second exhibition was very attractive. The flower tent was amply supplied; and some very fine grown plants were exhibited. Fruits, there were not many in season; and the collections of vegetables were not very large. There is no doubt that better grown vegetables might have been sent; and they who now regret that they withheld, will be induced to send to the next exhibition, which is fixed to take place in January next. The fourth exhibition will take place in

March, and the fifth in October. The prize lists for all three have been published, in order that growers may make their arrangements.

Amongst other matters which are under the Committee's consideration is the proposition to hold monthly exhibitions, for the purpose of enabling nurserymen and others to exhibit newly-raised and newly-imported plants. This, I have no doubt, will be commenced immediately after the next exhibition.

Reference to the prize lists will show that the committee intend to restrict competitors for the future, to exhibit only their own productions. Gradually, the Society may attain to something like efficiency in a scientific point of view, if those who are learned in the mysteries of Botany, Floriculture, and Horticulture, do not withhold their help. That the society has already done some good I am enabled to testify. I know of several garden cultivators who are exerting themselves to increase the size and improve the quality of their productions. This is but the beginning, and we are often reminded that we must not despise the day of small things. Here, where vegetable productions are fetching enormous prices and are at times only obtained with great difficulty, the stimulus which such a society gives to increased and improved culture must already result in good. Perhaps the time is not far distant when, on the stalls of a convenient market-place in the Cape metropolis, we shall be able to trace the operations of this society.

There is much more to be said; but I have gone to sufficient length for this paper. The committee will soon meet, to examine a very large collection of medicinal plants sent to the last exhibition. When these have been examined and their uses, &c., ascertained, I will forward to the *Cape Monthly* a paper on the subject, together with such other remarks as may suggest themselves.

LITERARY REVIEW.

Of the recent accessions of new books at the Public Library the most interesting by far is *Talangetta*, a tale of Australian Life, by William Howitt. Its sketches of squatter life, and "diggin' life," and bush-ranging life are, of course, highly picturesque and graphic; and from Mr. Howitt's personal residence in Australia, we may suppose them to be accurate as well. The story is a very simple one. An English baronet, Sir Thomas Fitzpatrick, after a protracted lawsuit with his

cousin Patrick, and, in consequence of the disappearance of the marriage certificate of his deceased mother, is dispossessed of his family estates and title. Sir Thomas, with his family, emigrates to Australia; he settles to a squatter's life in the Australian "bush;" and, after two or three years' adventures, all comes right in the end: the marriage certificate is recovered; his claim to his ancestral property is re-established; and he returns to England in happiness and prosperity. With these simple incidents, as a nucleus, Mr. Howitt contrives to collect additional matter for one of the most fresh and interesting fictitious works of the day. One peculiarity in the construction of the tale is specially noteworthy. The author introduces spirit-rappers, and a mystic character possessed of that dubious gift of the second sight, as part of the artistic machinery of the fiction. Mr. Howitt, in his preface, does not exactly commit himself to implicit faith in these "developments;" but he manifests a decided weakness in that direction; and in the novel he certainly introduces his supernatural elements with considerable artistic delicacy and marked effect. The charm of the book, however, consists in the vivid sketches presented to us of Australian life. A few of the episodical passages appeared before in *Household Words*, and attracted much attention at the time. One of them in particular, *Black Thursday*, descriptive of an Australian drought and an Australian bushfire, is one of the most powerful, graphic, and terrible pieces of descriptive writing to be met with anywhere. In one of these episodes an admirable idea is given of the rise and progress, and misfortunes and ultimate prosperity of Victoria, in Australia. It was in 1835, only twenty-two years ago, that the over-crowded colonists of Van Diemen's Land first began to direct their attention across the intervening channel to the pastures and woodlands, and park-like expanses of which they were told the main beyond consisted. At last, after much cogitation, a party of Tasmanian squatters, with John Pascoe Fawkner at their head, hired a Sydney ship, the *Enterprise*, and with their cattle and people, steered across from the heads of the Tamar to the present bay and site of Port Phillip. A few had contrived to outstrip the Fawkner party. Among them was one John Batman, who had settled at Indented Head; and when the *Enterprise* party arrived off the coast, he took special pains to warn them away. Fawkner, however, was determined and ambitious:—

"He sailed coolly up the bay, and planted his standard on a rising ground, at its head, and near the mouth of a pleasant river. Here, disregarding the aboriginal claims of Batman, he built the first hut, opened the first inn, ploughed up the first ground, issued the first newspaper—a manuscript one, and became the founder, if not of the colony, as he yet styles himself, the undoubted founder of Melbourne."

Then we have sketches of the gradual progress of these primitive squatters in the wilderness of the interior; the contests and hardships they endured before they attained to a fair and prosperous settlement in the country; and when all these preliminary struggles seemed to be

over, the succeeding commercial crash and almost universal ruin of 1842. After that we have described the gradual rise of a wholly different class of squatters, who were now fortunate enough to enter into the labours of their ruined predecessors; the rapidly-increasing wealth of the country, rising like another Phœnix from its ruins; and, as the crowning point of its prosperity, the gold discoveries, with all their attendant immigration, commercial enterprise, and general progress.

Of the varied features of digger life, the one on which Mr. Howitt dwells most unfavourably is, the administration of justice by "the boy commissioners, in gold lace and demi-military uniforms; young men of gentlemanly character and education—some; snobbish, and empty, and vain—many." Two of them, in particular, he pillories most unenviably, as at once arrogant, shallow-pated, and grossly corrupt. That there was some foundation for these charges, the attempted insurrection among the diggers of Ballarat, and the circumstances connected with those outbreaks, would go far to prove. Bushranging is another feature of Australian life, of which *Talangetta* gives some interesting glimpses; and the trial of Abijah Popkins, innocently suspected of belonging to a gang of notorious bushrangers, forms the most exciting chapter of the tale. We cannot enter into any details, and we shall only extract one other brief passage, as a sample of some of the shrewd hometruths quietly interspersed throughout the whole narrative. It is a digger's account of the unfortunate Abijah's disgrace:—

"The lad," said the digger, "is young Popkins, Abijah Popkins, as he is called, a young storekeeper. They tell me he is the son of very decent parents, religious, regularly religious people; but, perhaps, they've been a little too tight laced with the lad; *and then, you know well enough, if a young fellow's principles are only held together by lacing, when the lace breaks, down go the principles.*"

The doctrine here stated is a very trite and common-place one; but we do not remember seeing it expressed more clearly and epigramatically before.

Of the accessions to the Library, by the *Celt*, we are furnished with the following list:—Hansard's Debates, 145 vols.; Mabel Vaughan; The Gairies; Lynch's Story of my Girlhood; The Noble Traytour; Quits; Greyson's Correspondence; Kidder's Brazil and Brazilians; The Present Crisis in India.

Of these, two are American novels,—*Mabel Vaughan*, by the authoress of the *Lamplighter*; and the *Garies*, by a Philadelphian 'man of colour.' The former work is edited and pruned of its Americanisms by Mrs. Gaskell; and the latter is introduced into the literary world under the patronage of Mrs. Stowe. The sort of story that may be expected in *Mabel Vaughan* may be guessed at from the following extract of Mrs. Gaskell's preface:—

"These American novels unconsciously reveal all the little household secrets (of American life). We see the meals put upon the table; we

learn the dresses which those who sit down to them wear; we hear their kindly family discourse; we enter into their home struggles; and we rejoice when they gain the victory."

Hoc genus omne of literature, it must be admitted, does supply a sufficient variety of daguerreotyped miniatures of home life, and that is about all that can be said of it.

The *Noble Traytour* is an Elizabethan chronicle, reviving Elizabethan life and manners, and emulating the Elizabethan types of language and style—somewhat in the fashion of "Ye married and maiden life of Mary Powell."

"R. E. H. Greyson's Correspondence" is, in all respects, a serious book, though the title is fictitious. It proceeds from the pen of Henry Rogers, the author of the *Eclipse of Faith*, and of whose name the pseudonym above is an anagram. The work discusses many of the same deep and difficult subjects which have been already so well discussed in Rogers' previous productions. It is interspersed with a few lighter sketches, to give buoyancy to the more ponderous matter. Among the other new works announced at home, but of which no copy has been received at the Cape, is one by Mr. Meredith, the son of a respected citizen of Cape Town. Mr. Meredith gained for himself an enviable reputation about two years ago, by his clever work,—*The Shaving of Shagpat.* He has now entered upon a new field of German romance, and produced what has been described as a most successful fiction of the rough old baronial times, founded, strangely enough, on the ancestral history of Johanna Maria Farina of Eau de Cologne celebrity.

One other item of literary news will be considered of interest. A new translation of the Bible is now in progress by the Chevalier Bunsen, and its publication was expected to commence even in the course of the present year. Those only can adequately appreciate this who have made themselves in any degree acquainted with the inexhaustible wealth of the Chevalier's theological, literary, and historic lore, as well as the largeness of heart and genial intellectual strength which distinguish all his writings.

At the Cape, several works of importance and value have, within the last few weeks, issued from the local press. Of these we have already, elsewhere, commented on one of the most interesting—*The New Zealand Proverbs*, collected by His Excellency Sir George Grey. The *Ray Surfaces of Reflection*, by Professor Childe of the South African College, is a mathematical treatise in a department of the science of optics requiring much analytical power and research. It is worked out to its conclusions elaborately and successfully, in a style which does credit to Mr. Childe's high reputation as a mathematical scholar. Strictly scientific and abstruse in its mathematical investigations, it is, of course, impossible to give any idea of the substance of it in a popular periodical. We must remark, however, that the engraved plates, the typography, and the getting up of the work altogether are highly creditable.

The Rev. Henry Tindall's *Grammar and Vocabulary* of the nearly extinct Hottentot language is an able and elaborate work; and while it will prove useful at present for the advancement of Missionary labour among the few thousand savages who yet speak that language, it will prove hereafter of interest and value as an element in the discussion of the philological and tribal distinctions of the aboriginal races of the African continent. But of this work, as well as of the Rev. Mr. Döhne's more extensive *Kafir-Zulu Dictionary*, now just issuing from the press, we shall take an early opportunity of presenting a full analysis and detailed extracts.

The Colonial Annuals are fast appearing, in the shape of some half dozen different *Almanacs*—all of which are good—and the *Commercial Diary and Bill-due Book*, which stands by itself in merit and value.

COMMERCIAL REVIEW.

At the time of our last going to press, we were gratified with the announcement of postal communication being resumed with the mother country, in a manner very similar to that lately proposed to the public by one of the representatives of Cape Town, in the local Parliament. We are convinced that a line, having vessels of good power, affording good accommodation for passengers, and making Port Elizabeth one of its ports for the discharge and shipment of cargo and passengers, will succeed with ordinary management. There are now increased and increasing facilities for communication by steam with the ports of the Eastern districts; and although all the vessels employed may not meet with success, we trust that the merchants of this city will see that it is to their advantage to give every assistance to the proprietors. Had more energy been directed to the maintenance of steamers on the coast, we should not have had reason to regret the springing up, within the last few years, of that direct trade at Port Beaufort and Mossel Bay, in the Western districts, and Algoa Bay and East London, in the Eastern, which have militated so much against Cape Town remaining the emporium of the trade of the colony. Our imports show that we have increased year by year most wonderfully, in spite of the falling off of our former protégés, but it is not to be denied that they would have been much more considerable had our coasting communications been more regular and frequent.

The importation of coals, or, rather, the arrival of vessels with that article, has again been very great. It was known that a large number of steam transports would call in Table Bay, en route to India and China; and this fact, added to the possibility of horses and troops being ordered in from here, has induced many shipowners to freight their vessels with coals, in the chance of disposing of them at paying rates. Failing in this, most of these vessels have proceeded to Mauri-

tius, Ceylon, and other Eastern ports. The Honourable East Indian Government deserve great credit for the publicity they have given to their intention to make their purchases of horses in this Colony, and of the great probability that seeking ships of large tonnage would obtain employment here. No difficulty has been experienced in purchasing horses in the Western districts; and we are informed that the military remounts on the frontier are being offered on lower terms than has been hitherto customary, showing no falling off in the supply in that quarter. The markets have been unusually quiet this month, and transactions have been limited. Five vessels have been reported inwards from the United Kingdom, with the usual assortments of British and foreign manufactures, hardware, &c., &c.; one from Holland with Dutch produce, of which a large portion appears to be gin and cheese; three from the Baltic, with timber, which appears to have arrived to a very favourable market; from Mauritius, 2117 bags sugar are reported, whilst our other Eastern importations have consisted of 5450 bags rice, 4000 of wheat, 800 oats, 750 gram, and about 8000 boxes tea.

The large quantity of forage which has arrived to market has not had the effect of diminishing the price so much, as was expected, which must be attributed to the requirements of the Commissariat. The wheat crop is generally good, although rust appears in many places, whilst, in others, the shortness of the straw, occasioned by drought, will, it is said, prevent farmers from reaping. The stock of foreign corn and flour has kept the price of colonial wheat down lower than we ever recollect it to have been at this season of the year. For India, purchases of flour have been made on behalf of the Government, and some few speculators have directed shipments to the same quarter. Wool is realizing extreme prizes in the country districts,—as high as 2s. 2d. ℔ lb. having been given at the last Riversdale fair. We hope that shippers will do well with this article, which depends much in its arrival before the opening of the February sales. Cape wines were, for a short time, depressed in the home market, but seem to have recovered in a slight degree. Of the wine which was shipped of an age and preparation which augured little good to the health of those who drank it, and which did less good to the credit of our wines, report says that the venture was by no means a satisfactory one,—the newness of the article having caused fermentation to a great extent, and the spirit by which it was fortified having caused it to pay an excessive duty at home. We earnestly request the wine merchants to make distinctive purchases, and to prepare them in such a manner that they may be *shipped at the proper time*, to the advantage and credit of the Colony.

Exchange in England is still declining. Treasury bills are being disposed of at 2 per cent. discount. Private bills in proportion. Money easier until the close of the month; but demands for discount are increasing. Freights for England have shown some signs of improve-

ment, although, at the commencement of November, ships were eager to take in wine and freight at almost nominal rates. Wool is being shipped @ ¾d. per lb. Government has taken up transports to proceed to India; but some dissatisfaction has been evinced at foreign vessels being engaged on this service. The American ships *Game Cock* and *Judith* are, however, admirably adapted for the conveyance of troops or horses.

MONTHLY REPORT OF THE SOUTH AFRICAN MUSEUM.

Cape Town, November 30, 1857.

I DO NOT think that a retrospect of any past month gives me greater satisfaction than that of the last. Our collection has received a considerable increase in the very branches where increase was most needed, several works in progress have been completed, and we have made an addition to our means of amusement, singularly attractive and very inexpensive.

I will first give a simple enumeration of our additions:—A fine Wild Cat (*Felis Caffer* Desm.), from Mr. Maclear, of the Royal Observatory. Some idea of the blood-thirsty nature of these animals may be formed from the fact that this creature has destroyed upwards of seventy fowls belonging to the Observatory alone. What his depredations have been on other hen-roosts, we have no means of ascertaining.

Stanley Crane (*Grus Stanleyi*), from Mr. Arthur Jackson, Nel's Poort. This noble bird has long been a desideratum to the Museum. Our series of the large waders of South Africa is now, as far as I know, complete. What treasures still remain hidden from us in the Lake district, we shall probably soon know, on the return of Vicomte de Castelnau, who is exploring in that quarter, while his father, the French Consul, is also working upon his tour in Namaqualand.

Captain Harrison, of the Zitzikama, has forwarded among other birds, a fine specimen of the celebrated *Hadada*. This bird I cannot find described in my limited library. It, however, belongs to the *Ibis* family, and is closely allied to the *Ibis Falcinellus* of India. I am told, that, owing to its wary habits and the locality in which it dwells, namely, the borders of lakes and rivers, it is very difficult to procure.

Several more of the birds obtained in my cruise in the *Castor* have been mounted: the series of sea-fowl is now nearly finished. The land birds will follow.

Dr. Graf is again among our list of contributors, sending us some good birds' eggs and one or two animals. These latter, already in the Museum, have been skinned and laid aside for exchange.

Our collection of birds' eggs has received most extensive additions

from Mr. Jackson, the younger folks of Dr. Gird's family at Oliphant's Fontein, Mr. P. Borcherds, Dr. Graf, and Mr. R. Smith. Some friend also left a Korhaau's egg at the Museum, having previously seen that we were deficient in that respect. We have now a very respectable collection in this branch of zoology, and my duplicates have enabled me to supply twenty-one species to our sister institntion at Graham's Town, on the urgent demand of the secretary, who wrote to say they had secured the services of a Taxidermist. This is a bit of good news, and I hope he may contiuue with them for a long period. An interchange of our duplicates would keep him at work for some months, even now. Mr. Jackson's contribution of eggs contained those of a *sand grouse*, commonly called the Namaqua partridge. *Pterocles Namaquensis ?* This is a most iuteresting addition, as we had none of that family before. Dr. Graf has likewise contributed the remarkable eggs of a saud piper, also a new family. In fact, our accessious cannot amount to less than a dozen or eighteen new species.

Perhaps the most attractive addition to the collection has been the live snakes. These have been visited by hundreds of spectators, even in the short time they have been exhibited; and the interest excited by them has determined me to solicit permission from the Trustees, at onr next monthly meeting, to extend the collection, as the expense attending upon it will be but small, and not a recurring one. I know that all our funds, and more, will be required to furnish the new building with suitable cases; and every effort I can make is devoted to the saving of expense for this object; but when the subscribers and the public have so openly expressed their gratification at the novelty, and wish to see the snakes properly housed, I have no hesitation in recommending the expenditurc.

The living animal, after all, is *the thing* worth looking at,—specimens stuffed or in spirit are but poor representations, however well they may be preserved. A zoological garden we cannot hope ever to obtain,—the constantly recurring expense for food, which, in the Regent's Park Gardens, amounts to *many thousands* yearly, we can never afford; but a few specimens such as those now exhibited, and the aqua-vivarium, when we have a place where we cau display it with a chance of success, will cost nothing, and render the institution more attractive than it is even now.

To Mr. Hugo, of Worcester, we are indebted for the very splendid specimen of the "poff-adder" (*Berus arietans*). Mr. Rennie, with his usual zeal for the public, has contributed most of the others, and to him we are indebted for the use of the glass cases.

Visitors are requested not to irritate the captives,—the fronts of the cases, it must be remembered, are only of glass, and a more angry spring than usual might demolish the separation between the infuriated reptile and its persecutor.

Any contribution of live lizards or snakes will be thankfully received. Dead specimens in this branch have been very numerous; and our collection is now arranged and labelled. The nomenclature was effected by my friend, the Count de Castlenau, before his departure for Namaqualand, and the new labels have been carefully re-written from his, by myself. Mr. R. Smith, of the Road Board Department, has been our largest contributor; and I have also to acknowledge one very fine species, among others, from Miss Proctor, which is new to our collection.

Our fossils! Thanks to the hearty response of several friends to my last month's appeal, our fossil cases will no more be a reproach to us. If our friends thus promptly come forward to supply our deficiencies, when known, I have little fear for the South African Museum. Time! Time!! is now the greatest desideratum. Were my mornings and evenings twice as long, I could hardly do justice to the stores now on hand, viz., 500 fossils from Europe; a collection from Dr. Rubidge, of Port Elizabeth, and a collection from the interior, forwarded by the Rev. Mr. Ashton. Of these, Mr. Ashton writes, under date, Kuruman, August 6, 1857:—"These are some of the fossils which Dr. Livingston mentioned in one of his letters to Mr. Maclear. He had not seen the place, neither had I. The hill is somewhere in the neighbourhood of Sikhatberg,—Mr. Helmer's station. These I have received from the Rev. Mr. Ross, who is supplying Mr. Helmer's place. If they will be deemed worthy a place in the South African Museum, I shall have great pleasure in making the contribution."

If Mr. Ashton did but know how worthy they are deemed, he would, I am sure, not regret his liberality. Two collections of shells from Mauritius,—one of them containing 200 species; one from the French ship *Virginie*, besides the host of miscellaneous articles, requiring attention and labeling!

The collections of shells have again been sent for exchange. Those from the French ship *Virginie* were obtained in exchange for some given by us to M. Thomas, an officer on board. They added several new genera to our cabinets, among them the remarkable gems *Cyrtulu*, allied to *Fusus*, and placed in the same case, near the splendid Indian species presented by the Rev. J. Fry.

While on this subject, I may mention that the collection promised to the Graham's Town Museum has been despatched per *Zulu*. It contained 450 varieties of all countries; and I trust that we shall soon receive from them some of their fossil genera in return.

I have received two boxes of shells from Mr. J. Laing, of Port Elizabeth; and Mr. McKen, of Natal, containing live specimens of *Ach. Zebra*, *Bulimus Krausii Ac: rugosa*, and *Cyclos. Affine*. These I propose to exhibit as soon as I have a suitable place for them. My vivarium now contains, in addition to the four abovenamed, *Helix Asperso*, from England; *Helix Globulus*, Cape (three or four varictics);

Cy: Translucidum, Natal; and four species of the gigantic *Achatina*, from the east coast, obtained during my cruise.

Among our miscellaneous additions may be mentioned an interesting donation by Lieut. Wyse, late of H. M. steam-ship *Geyser*, and now of the *Himalaya*. While cruising on the West Coast, Mr. Wyse picked up for us a musical instrument, called *Marimba*. This consists of a series of gourds, graduated in size, and fixed to a frame of wood; the gourds are perforated at the side, as well as open at the neck, and a communication exists with them through the frame, by means of tubes of soft wax or resin; inside the gourds there are small drums of clay, covered with a thin membrane. Over the resin tubes and laid on strings, stretched across the frame work, are slabs of wood about a foot long, and varying in breadth, and these being struck with the drumsticks (canes with heads made of the sinews of animals) produce the notes. There are ten of these slabs, which make an imperfect octave and two high notes that seem *sharps*. Unfortunately, the rats gnawed asunder the strap which held them together, and thus prevented me from ascertaining how they were arranged by the original manufacturer. Altogether, though the volume of tone is not equal to that of an organ, it is a surprising instrument to be the handiwork of a savage.

Another specimen of the craft of man, in a rather more advanced stage of civilization, consists in a piece of the great Atlantic cable, presented by the Commercial Exchange. It was brought to this country by Dr. Mann, who lately proceeded to Natal.

NOTES AND QUERIES.

REPLIES.

Gottfried Heinrich, Count Pappenheim, Imperial General in the Thirty Years' War, was born on the 29th of May, 1594, at Treutlingen, in Suabia, and educated at the Universities of Altdorf and Tubingen. At the age of 20, he went over to the Catholic faith. He greatly distinguished himself at the battle of Prague, in the year 1620, holding then the rank of a colonel. With impetuous courage, he rallied the retreating Austrian cavalry, and, united with the Bavarians, drove the victorious Bohemians and Hungarians to the Moldavia. There, badly wounded, he laid for many hours under his horse, until some of his own soldiers, plundering the battle-field, discovered him. In the year 1623, created by the Emperor colonel of a regiment of cuirassiers, the famous "Pappenheimers," from 1623 to 25, he fought at the head of the Spaniards, in Lombardy, until recalled by the Emperor Maximilian to suppress the revolt of the peasants in Upper Austria, in 1626. In the short time of a month (November, 1626) he finished this war, in which forty thousand peasants perished. He went then to North Germany, to assist Tilly to

conquer Christian IV, King of Denmark. He was already with a large army on the way to the Lower Rhine, to succour the Spaniards, then hard pressed, when Wallenstein called him to Lutzen, to take part in the impending battle.

Pappenheim and his cavalry arrived just at the moment when victory was inclining to the Swedes. Eager to meet Gustavus Adolphus personally in combat, he threw himself in the thickest of the fight, and succeeded in restoring the combat. The Swedes, wearied and too weak in numbers, began already to succumb, when two musket balls pierced Pappenheim's breast, and thus, mortally wounded, his soldiers were obliged to take him off the battle-field by force. Having heard that Gustavus Adolphus had also fallen, he exclaimed—"Thank God, I can die now in peace,—the arch-enemy of the Catholic faith having gone before me." He died the day after the battle of Leipzig, where he was brought on a litter on the 7th of November, 1632. On account of his innumerable wounds, his soldiers, who loved and feared him, called him "Schrammen Hans," or Jack Scratch.

Translated from the *Encyclopædia Germanica.* J. C. H.

Port Elizabeth, 23rd November, 1857.

A QUERIST in your last month's publication desires a biographical sketch of Pappenheim, the famous leader of the armies of the League, in the Thirty Years' War. The writer of the following remarks will be happy if they in any way assist towards this object.

Godfrey Henry, Count of Pappenheim, was born in 1594. His birthplace, so far as the writer is aware, has not been mentioned by biographers; but there is every probability that he was born in the castle of his ancestors, in the town of Pappenheim, the capital of the compté of that name, in the present kingdom of Bavaria. His portrait hangs at this day among the family pictures at the Château.

The house of Pappenheim is one of the oldest seigneurial families of Germany. For upwards of six hundred years, until the dissolution of the German empire (6th August, 1806) they were invested with the dignity of Marshals of the Empire; and they take place, in point of seniority and ancient lineage, above the house of Wittelsbach,—the sovereigns at the present day on the throne of Bavaria. The previously mentioned scion of this illustrious family, the great count, whose part in history has made the name so familiar to all, is said, in the asperity of his manners, even when a child, to have already given token of the stern and indomitable character which distinguished him in after life, and which so marked him for a military career, that the great Gustavus Adolphus, whenever he spoke of him, always gave him the designation of "the soldier." It is said of him, among other traits betokening the same spirit, that he was never known to cry when a child. With this fierce temper, he united an insatiable thirst for learning. At the age of fourteen, he was admitted a student of the University of Altdorf, in

Bavaria, and here he so greatly distinguished himself that, within a few years, he was chosen Rector of the University. He was impatient, however, for a more stirring life; and, after a term spent in travels through France, Spain, and Italy, in 1618, he entered the army of the League. In his military career, he chiefly made himself conspicuous at the battle of Prague (1619), the sack of Magdebourg (May, 1631), at Leipzig (September, 1631), and at Lutzen (6th November, 1632). In this last battle he received his death-wound, together with the great king of the Swedes. When he arrived upon the field towards the close of the day, Gustavus Adolphus had already expired.

Should the circumstance be new to your querist, it may be of interest to him to learn that shortly after the close of the Thirty Years' War, the family of Pappenheim became Protestants, and they have ever since been, and still continue to be regarded as the pillars of protestanism in Bavaria, for the most part a catholic country. It appears indeed worthy of especial notice, and fraught with no light significance, that the immediate descendants of two who led the van of battle in the cause of their respective creeds, should have departed from those religious banners for which their ancestors fell on the great day of Lutzen.

The present head of the family of Pappenheim is not altogether a stranger at the Cape of Good Hope,—the count and his only surviving daughter having frequent correspondence with a family resident near Cape Town; and who were some years ago honoured with the education of the young countess and her deceased sister, whose portrait has also found its way to the Cape.

21st November, 1857. Y.

Godfrey Henry, Count of Pappenheim, descended from the old and noble family of the Calatins, or Calentins. He was born a Protestant in 1594, at Pappenheim (in Bavaria), an estate belonging to his house, and assumed that name since 1618. He was present at the assassination of Henry IV, of France (May, 1610), became a Roman Catholic in 1614, and fell in 1632 on the battle-field of Lutzen. (Pierer's Universal Lexicon, 4th edition, Vol. XI.) P.

Salt was held in great veneration by the ancients. Setting the salt before a stranger was reckoned a symbol of friendship, as it still is by *some Eastern nations.* "Proving false to one's salt" therefore means—"becoming from a friend a treacherous foe." (Adam's Roman Antiquities.) P.

DEATH OF LICHTENSTEIN.

It is with sincere regret that we hear of the death of Dr. Henry Lichtenstein, Professor of Natural History in the University of Berlin, but still more distinguished as the venerable veteran of our early South African travelers. He was a truly excellent character, and universally beloved. His death was an appropriate one for a traveller; he departed this life on board ship while on his voyage from Sweden, where he had been visiting friends. Mrs. Lichtenstein was with him at the time. His remains were brought on shore and interred at Kiel. By his decease the German metropolis loses one who, much esteemed as he was as a scientific observer, was still more highly valued as a truly lovable and noble man. In the welfare and progress of South Africa he continued to take a warm and lively interest; and even to the last he cherished the hope that in his old age he might once more revisit the localities where he had made his earliest discoveries more than fifty years ago. His only child, a promising and hopeful son, he lost several years since. He perished in an unfortunate duel. B.

ASTRONOMICAL PHENOMENA FOR DECEMBER, 1857.

Dec. 4.—The star υ Geminorum (fifth magnitude) occulted by the Moon.

Immersion, 4h. 11m. 6s. a.m.
Emersion, 5 26 8 „ } Cape Mean Time.

„ 4.—4h. 23m. p.m., Saturn and Moon in conjunction — Saturn 4° 14′ S.

„ 10.—5 11 p.m., Mars „ „ — Mars 3 45 N.

„ 11.—Star Spica (fifth magnitude) occulted by the Moon.

Immersion, 4h. 48m. 4s. a.m.
Emersion, 5 27 4 „ } Cape Mean Time.

„ 14.—10h. 36m. p.m., Venus and Moon in conjunction — Venus 5 46 N.

„ 17.— 9 27 p.m., Mercury „ „ — Mercury 2 29 N.

„ 26.— 8 16 p.m., Jupiter „ „ — Jupiter 5 8 S.

„ 28.— 3 41 a.m., Uranus „ „ — Uranus 4 57 S.

„ 31.— 7 55 p.m., Jupiter stationary.

„ 31.— 9 23 p.m., Sun in Perigee.

Evening Stars—Planet Jupiter; Stars Aldebaran, Rigel, Canopus, and Sirius; Jupiter West; the others east of the Meridian.

Morning Stars—Planet Venus; Stars Arcturus and Spica.

GEORGE MACLEAR, R.O.,
Second Assistant, Astronomical Department.

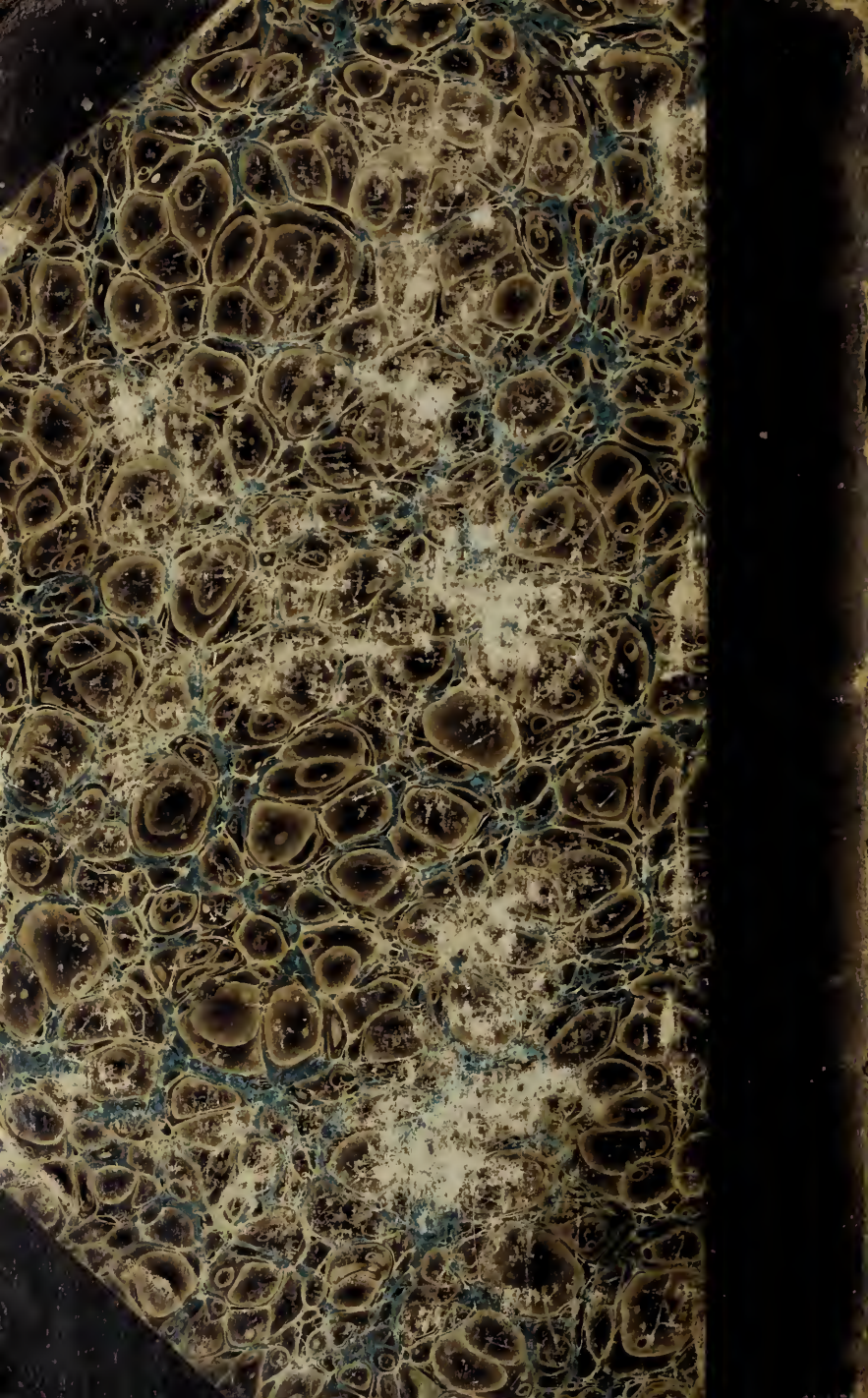
Meteorological Register for October, 1857.

Deduced from five Observations daily, Sundays excepted.

Hours of observation, 1h. 34m., 5h. 34m., 9h. 34m., 17h. 34m., 21h. 34m., Cape mean time.—Height above the sea level, 37 feet.

Day.	Barometer corrected at 32° Fahrt.	Thermometer:		Humidity of Air. Saturation = 100	Self-registering Thermom		WIND.		Rain.	Cloudy Sky in tenths.
		Dry.	Wet		Max.	Min.	Force.	Direction.		
	Inch.	°	°		°	°			Inch.	
1	30·083	59·86	55·96	79·0	65·2	51·0	0·4	NWbW	0·005	6·2
2	·217	60·22	54·96	71·8	66·0	51·7	1·5	S		4·4
3	.137	58·40	53·90	75·8	65·5	46·4	1·1	WSW	0·006	4·2
4					64·0	51·9			0·031	
5	29·894	53·78	50·46	79·8	60·5	44·8	2·3	WSW	0·687	7·7
6	30·286	51·12	47·40	77·0	59·0	36·0	1·4	SbW	0·052	3·5
7	·403	57·04	51·00	66·2	60·9	50·0	4·4	S¼W		2·3
8	·252	64·92	55·90	56·8	69·8	55·0	3·5	S¼W		1·3
9	·027	67·22	59·98	66·6	74·5	54·3	1·6	S¼E		3·8
10	29·925	65·14	61·02	81·2	77·8	55·5	1·6	WbS		7·9
11					67·5	55·8			0·302	
12	·904	61·36	59·76	91·0	67·5	56·0	0·3	NNW½W	0·062	9·8
13	·880	60·76	58·09	84·4	65·2	54·5	1·8	NW½N	0·048	7·2
14	30·061	59·14	54·98	77·0	63·7	52·1	0·7	W½N	0·042	6·6
15	.247	60·34	55·21	73·0	64·3	51·0	0·7	S¼W	0·017	2·7
16	·054	60·18	54·86	72·2	65·8	47·5	1·6	S½W		0·1
17	29·975	63·64	57·06	67·2	70·0	52·0	1·5	S¼E		1·0
18					67·5	54·5			0·005	
19	30·015	64·88	59·14	73·6	73·8	51·4	1·2	SbW½W		1·7
20	·007	66·14	60·06	72·8	78·3	51·6	1·5	SbW½W		4·3
21	·020	65·64	58·64	75·4	72·5	51·0	0·1	W½S	0·010	3·8
22	·196	60·94	55·42	71·0	68·5	51·2	1·1	SW½S	0·027	7·8
23	·345	59·40	50·96	55·0	64·3	50·5	4·8	S¼E		0·3
24	·100	63·48	56·50	64·5	67·2	54·3	5·0	SW½S		1·4
25					66·9	53·5				
26	·109	59·02	52·80	66·6	66·5	49·5	3·8	SbW½W	0·002	3·7
27	29·997	64·06	56·02	60·6	70·4	56·6	3·9	SbW		1·1
28	30·108	60·94	55·66	72·2	68·3	51·7	3·8	SbW½W		4·8
29	·143	62·34	55·50	66·4	66·5	53·0	0·7	SSW		2·5
30	·004	66·00	58·02	62·0	73·3	57·3	4·6	S¼W		0·5
31	·019	64·60	59·10	73·2	72·0	57·9	5·5	SbW		2·7
Mean	30·090	61·43	55·87	71·57	67·85	51·93	2·24	SW½S	1·296	3·83

(Signed) PIERCE MORTON,

Assistant, Royal Observatory, Magnetical and Meteorological Department.

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